

Durham E-Theses

Management Accounting Change: A hybrid institutional and managerial perspective : The case of the Greek Higher Education Institutions

KATSIKAS, EPAMINONDAS

How to cite:

KATSIKAS, EPAMINONDAS (2013) *Management Accounting Change: A hybrid institutional and managerial perspective : The case of the Greek Higher Education Institutions*, Durham theses, Durham University. Available at Durham E-Theses Online: <http://etheses.dur.ac.uk/8473/>

Use policy

The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a [link](#) is made to the metadata record in Durham E-Theses
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

Please consult the [full Durham E-Theses policy](#) for further details.

Academic Support Office, Durham University, University Office, Old Elvet, Durham DH1 3HP
e-mail: e-theses.admin@dur.ac.uk Tel: +44 0191 334 6107
<http://etheses.dur.ac.uk>

Management Accounting Change

A hybrid Institutional and Managerial perspective

The case of the Greek Higher Educational Institutions

Management Accounting Change

A hybrid Institutional and Managerial perspective

The case of the Greek Higher Educational Institutions

By

Epameinondas Katsikas

**Thesis is submitted in partial fulfilment of the requirement necessary
for the Doctor of Philosophy in Accounting.**

Durham University Business School

Durham University

Mill Hill Lane

Durham, DH1 3LB

United Kingdom

Submission in 2013

Declaration

The material within this thesis is the sole ownership of me, the author. Please, do not quote without my consent. I declare that this thesis is my own and has not been submitted to any other institution for credit or another degree.

Statement of copyright

The copyright of this thesis rests with the author. No quotation from it should be published without the author's prior written consent and information derived from it should be acknowledged.

Acknowledgements

With the thesis now accomplished, I feel indebted to all those people who have given their support to this project and as a result have contributed significantly in a variety of ways.

First and foremost, I would like to express my gratitude, sincere appreciation and deepest thanks to my supervisors Professor Robert Dixon and Professor Anne Woodhead for their tremendous support, valuable comments and insight in the preparation of this thesis.

Secondly, I would like to thank the academic and the administrative staff at the Business School for their support over these years.

Finally, I wish to thank my family for their support, encouragement, sacrifices and setting an example for me to follow in my life.

Abstract

The responses of certain organisations, such as Higher Educational Institutions (HEIs), to the demands of their institutional environment are central to this study. In today's economic climate and under the existing political and social conditions, it is inevitable for organisations to consider and/or undergo some form of change and to reform the existing management practices so that to become more efficient and accountable regarding the acquisition and use of the public sector resources thus, adopting the New Public Management principles. In this vein, accounting was expected to play a major role in providing new forms of financial information. This information would then be utilized towards the improvement of the public sector's performance and accountability in order to achieve efficiency, effectiveness and economy and the presence of the accrual basis accounting system has constituted an important change component.

The current study focuses on providing an answer to the question of how HEIs in Greece responded to governmental pressures for accounting reform during the decade of 1998-2008; specifically, it focuses on the extent to which HEIs implement the accrual accounting system and the influence of the isomorphic and intra organizational dynamics on its implementation. The aim of this enquiry is to assist in providing a deep understanding of the external and internal dynamics that influence the adoption and implementation of the Management Accounting (MA) systems, resulting thus, to new daily accounting practices within certain organizations. The current study is not limited in researching the various ways in which the Greek HEIs cope with the management of the change pressures but also aims towards studying the effect of the internal and external institutional environment within which organizations operate. This institutional environment exerts influence on the behavior of the organizations with regard to change.

The theoretical framework employed various institutional theory strands and perspectives on change management theories regarding change management processes that consider the ways in which MA practices can undergo change. Consequently, a hybrid institutional approach of MA change derived from the integration of various strands of institutional theory, such as Old Institutional

Economics (OIE) and New Institutional Theory (NIS) and perspectives on change management theories. The adoption of a subjectivism interpretive philosophy has been suggested as the most appropriate and a case study research strategy has been adopted for the scope of this study including an in part survey strategy. The Greek higher education system is considered to be the case study under investigation. The complexity of the phenomena under investigation implied the need for a sequential mixed method approach in order to best understand and explain the phenomenon under investigation.

The current research aims to contribute to the growing body of literature of MA and change management that combine OIE and NIS perspectives with change management theories and to provide major implications for the successful MA change in certain organizations, such as higher education sector institutions. With respect to this specific research area, twofold objectives have been considered to be achieved via this study concerning theoretical and practical aspects equally. The theoretical objective of this thesis was to develop a valuable theoretical framework by using complementary various theoretical strands and perspectives. The second objective was the empirical investigation of the accrual accounting system implementation in certain organizations such as the Greek HEIs. The findings of the empirical study have been expected to provide organizational actors with a further understanding of the MA change and the influence of isomorphic and intra organizational dynamics in the accounting change process.

This thesis has provided evidence of how the intra organizational dynamics have been activated towards the implementation of the new accounting system under the government pressure and the isomorphic forces enacted for. Furthermore, it resulted in that the implementation of the accrual accounting system and the attempted MA change were dependent on the activation and interaction of the isomorphic forces as well as of the intra organizational dynamics which guided the whole process of change from the starting point to its resulting thus to the new daily accounting practices and routines up rising as taken for granted. In particular, based strictly on an investigation of the existing literature and the analysis of the derived findings by the survey structured questionnaire and the face-to-face interviews, it is assumed that isomorphic forces have been insufficiently activated by the external environment in

order to push the Greek HEIs forward towards the adoption of the accounting reform demanded by the legislator (Presidential Decree 205/1998). It is also supported that the intra organizational dynamics, activated within each individual HEI that implemented the accrual accounting system, have not resulted sufficiently to the development of new accounting routines, considering them as the positive outcome of the successful accounting change process.

Contents

Table of Contents

List of Tables

List of Figures

List of Boxes

Abbreviations

Abstract

Declaration

Statement of copyright

Acknowledgements

CHAPTER 1: Introduction

1.0 Introduction	1
1.1 Background to the study	2
1.1.1 New Public Management and Accounting Reform	6
1.1.2 Previous research studies	9
1.2 Greek higher education system: The case study	15
1.3 Research problem and questions: the significance of research	20
1.4 Outline of the thesis	24
1.5 Summary	27

SECTION A (Theory and theoretical considerations)

CHAPTER 2: Reviewing Literature

2.0 Introduction	31
2.1 Institutional theory	32
2.1.1 Using institutional theory	33
2.1.2 Institutions and routines	37
2.1.3 Institutional theory	40
2.1.3.1 <i>Old Institutional Economics (OIE): The concept</i>	41
2.1.3.2 <i>New Institutional Sociology (NIS): An overview</i>	42
2.2 Management Accounting (MA) change	47
2.2.1 The nature of MA change	50

2.2.1.1 <i>Preconditions of accounting change</i>	53
2.2.1.2 <i>The process of accounting change</i>	56
2.2.2 Accrual accounting: a component of MA change	58
2.2.2.1 <i>Costing information</i>	60
2.2.2.2 <i>Budgeting and financial reporting</i>	61
2.2.2.3 <i>Questioning the accrual accounting moving</i>	63
2.3 Understanding the process of change	66
2.3.1 The notion of change	67
2.3.2 Why and how change happens	70
2.3.3 Managing change	74
2.3.3.1 <i>Change process models and change dynamics</i>	76
2.4 Summary	85
 CHAPTER 3: Theoretical Framework considerations	
3.0 Introduction	87
3.1 MA change: An Institutional perspective	88
3.2 A hybrid Institutional approach	90
3.4 A managerial approach: Kurt Lewin's three phase model	96
3.4.1 Unfreezing/Motivating	99
3.4.2 Transition/Managing	100
3.4.3 Refreezing/Institutionalizing	101
3.5 A multi approach framework construction	103
3.5.1 Phase A: Encoding/Motivating Change	115
3.5.1.1 <i>Step 1: Increasing urgency</i>	117
3.5.1.2 <i>Step 2: Creating a vision</i>	118
3.5.1.3 <i>Step 3: Building the guiding teams</i>	120
3.5.2 Phase B: Enacting/Managing Change	121
3.5.2.1 <i>Step 1: Top management commitment and support</i>	122
3.5.2.2 <i>Step 2: Communicating change</i>	125
3.5.2.3 <i>Step 3: Encouraging participation</i>	127
3.5.3 Phase C: Reproducing/ Institutionalizing Change	128
3.5.3.1 <i>Step 1: Reinforcing new processes</i>	130
3.5.3.2 <i>Step 2: Evaluating new processes</i>	130

3.5.3.3 Step 3: Rewarding	131
3.6 Summary	133

SECTION B (Research methodology and empirical investigation)

CHAPTER 4: RESEARCH METHODOLOGY AND METHODS

4.0 Introduction	135
4.1 Research methodology	135
4.2 Research philosophy	137
4.3 Research approaches	141
4.3.1 The theory triangulation approach	142
4.4 Research design	144
4.4.1 Research strategy	145
4.4.1.1 The case study strategy	146
4.4.1.2 The survey strategy	147
4.4.1.3 The current research strategy: A triangulation	148
4.5 Research design choices	152
4.5.1 Multiple methods choices	153
4.5.2 The rationale for a mixed-method research	159
4.5.2.1 Phase A: A Document analysis and survey	163
4.5.2.2 Phase B: A structured questionnaire survey	164
4.5.2.3 Phase C: Semi-structured interviews	167
4.6 Research design quality: Reliability and Validity	169
4.6.1 Data Triangulation and Methodological Triangulation	170
4.6.2 Validity	171
4.6.3 Reliability	172
4.7 Research Methodology issues: Weaknesses and Strengths	172
4.8 Ethical Considerations	174
4.9 Summary	175

CHAPTER 5: The case of Greek higher education

5.0 Introduction	177
5.1 The Greek higher education environment	179
5.1.1 The higher education structure	179

5.1.2 Significant reforms: A historical background	185
5.1.3 Funding and accountability	190
5.1.3.1 <i>Funding</i>	190
5.1.3.2 <i>Accountability</i>	193
5.1.4 Public Management issues	195
5.2 Towards the accounting reform	198
5.2.1 The initial accounting reform concept	202
5.2.2 Further accounting framework development	204
5.2.3 Obstacles to the accounting reform: a considerable criticism	209
5.2.3.1 <i>Politics</i>	209
5.2.3.2 <i>The accounting reform process</i>	210
5.2.3.3 <i>Operationalization</i>	211
5.3 From 1999 onwards	212
5.4 Analysis and findings	213
5.4.1 Isomorphic pressures	216
5.4.1.1 <i>Coercive force</i>	216
5.4.1.2 <i>Normative force</i>	219
5.4.1.3 <i>Mimetic force</i>	221
5.4.2 Survey findings: an overview and analysis	223
5.5 Summary	233

CHAPTER 6: Surveying of Management Accounting change

6.0 Introduction	240
6.1 The institutional structure	241
6.2 Survey instrument	244
6.2.1 Validity and Reliability Issues	246
6.2.1.1 <i>Validity</i>	246
6.2.1.2 <i>Reliability</i>	249
6.3 Findings and analysis	249
6.3.1 Sample	249
6.3.2 Data collection	250
6.3.3 Survey limitations	252
6.3.4 Data analysis	252

6.3.4.1 Section A: An overview and analysis	253
6.3.4.2 Section B: Analysing the intra organizational dynamics	264
6.3.4.3 Section C: Resulting in new routines	273
6.4 Summary	290

CHAPTER 7: Interviewing of Management Accounting change

7.0 Introduction	294
7.1 Interview protocol development	295
7.2 Collecting and analyzing data quality issues	296
7.3 Sample	296
7.4 Data collection	297
7.5 Data analysis	298
7.5.1 Section A: Presenting Interviewees	298
7.5.2 Section B: Analysing the dynamics	300
7.5.2.1 Isomorphic dynamics	300
7.5.2.2 Intra organizational dynamics	304
7.5.2.2.1 Motivating/encoding change	305
7.5.2.2.2 Managing/enacting change	311
7.5.2.2.3 Reproducing/institutionalizing change	317
7.5.3 Section C: Resulting in new routines	323
7.5.3.1 Accounting information usefulness	323
7.5.3.2 Providing costing information	329
7.5.3.3 Financial reporting	333
7.6 Summary	339

SECTION C (Confirmation and comprehension of the results)

CHAPTER 8: Integrating results: confirmation and comprehension of findings

8.0 Introduction	345
8.1 Isomorphic pressures: A three study analysis	349
8.2 Responding to isomorphic pressures	358
8.3 Analyzing the intra organizational dynamics	359
8.4 Resulting in new routines	364

8.5 Reflecting the theoretical framework	368
8.6 Closing remarks	370
8.7 Further research implications	375

Appendices

Appendix I Questionnaire cover letter	379
Appendix II Structured questionnaire on the accrual accounting implementation in the Greek HEIs.	380
Appendix III Semi-structured interview questionnaire on the accrual accounting implementation in the Greek HEIs	386
Appendix IV The Constitution of Greece. Article 16 (Education, Art, Science)	388

<i>References</i>	390
--------------------------	-----

List of Tables

Table 2.1:	A typology of technical level change in management accounting	49
Table 2.2:	Research in technical innovations applied in accounting	51
Table 2.3:	Examples of organizational change	71
Table 2.4:	Koter's eight step phase model	80
Table 2.5:	Amstrong's eight phase model	55
Table 3.1:	Types of isomorphism and change characteristics	92
Table 4.1:	Choosing a research strategy	145
Table 4.2:	Research design choices respectively to the research questions	161
Table 4.3:	Research methodology issues: weakness and strength	173
Table 5.1:	Greek Public HEIs typology	180
Table 5.2:	Greek universities presented according to date of foundation and geographical location	181
Table 5.3:	Duration of studies in the Greek HEIs	182
Table 5.4:	Greek TEIs presented according to date of foundation and geographical location	183
Table 5.5:	Phases of the reform process	200
Table 5.6:	Categorization of Greek HEIs	225
Table 5.7:	The classification of the implemented the accrual accounting system HEIs according to the age, location and size	228
Table 5.8:	The HEIs that implemented the accrual accounting system according to age, location and size	232
Table 6.1:	Institutional governance structure	242
Table 6.2:	Descriptive frequency analysis	261
Table 6.3:	Descriptive frequency analysis	263
Table 6.4:	Descriptive frequency analysis	264
Table 6.5:	Summary of Descriptive Statistics and Reliability Scores	266
Table 6.6:	Rotated Component Matrix	269
Table 6.7:	Component Score Covariance Matrix	270
Table 6.8:	Statistics of COM1, COM2 and COM3	270
Table 6.9:	Statistics of GROUP "YES" and GROUP "NO"	272
Table 6.10:	Descriptive statistics regarding recognition and	

measurement of fixed assets for group “YES”	274
Table 6.11: Descriptive statistics regarding recognition and measurement of fixed assets for Total respondents	274
Table 6.12: Descriptive statistics regarding depreciation and maintenance costs of fixed assets for Total respondents	277
Table 6.13: Descriptive statistics regarding depreciation and maintenance costs of fixed assets for group “YES”	277
Table 6.14: Descriptive statistics regarding fixed assets in the opening balance sheet for total respondents	279
Table 6.15: Descriptive statistics regarding fixed assets in the opening balance sheet for group “YES”	279
Table 6.16: Descriptive statistics regarding stocks/inventories for total respondents	280
Table 6.17: Descriptive statistics regarding stocks/inventories for group “YES”	280
Table 6.18: Descriptive statistics regarding revenues and expenses for total respondents	281
Table 6.19: Descriptive statistics regarding revenues and expenses for group “YES”	281
Table 6.20: Descriptive statistics regarding financial reporting for total respondents	284
Table 6.21: Descriptive statistics regarding financial reporting for group “YES”	284
Table 6.22: Receivables for total respondents	285
Table 6.23: Receivables for group “YES”	285
Table 6.24: Payables for total respondents	286
Table 6.25: Payables for group “YES”	286
Table 6.26: Cash and cash equivalents for total respondents	287
Table 6.27: Cash and cash equivalents for group “YES”	287
Table 6.28: Costing for total respondents	288
Table 6.29: Costing for group “YES”	288
Table 6.30: Descriptive statistics regarding section C for accrual accounting use	289
Table 7.1: Section A Questionnaire according to the respondents HEIs	299
Table 7.2: Isomorphic forces according to the interviewees HEIs	303
Table 7.3: Statistics of Isomorphic forces (Coercive, Normative and Mimetic)	304
Table 7.4: Motivating/encoding dynamics according to the interviewees HEIs	310

Table 7.5: Statistics of motivating/encoding dynamics	310
Table 7.6: Managing/enacting dynamics according to the interviewees HEIs	316
Table 7.7: Managing/enacting dynamics according to the interviewees HEIs	317
Table 7.8: Reproducing/institutionalizing dynamics according to the interviewees HEIs	321
Table 7.9: Statistics of reproducing/institutionalizing dynamics	322
Table 7.10: Resulting in new routines according to the interviewees HEIs	337
Table 7.11: Statistics of resulting in new routines	337
Table 7.12: Statistics regarding new routines	339
Table 8.1: Research design choices respectively to the first research question	350
Table 8.2: Isomorphic forces findings with regard to phase study and data analysis	356
Table 8.3: Research design choices respectively to the second research question	358
Table 8.4: Research design choices respectively to the third research question	360
Table 8.5: Research design choices respectively to the fourth research question	364
Table 8.6: Research design choices respectively to the fifth research question	368

List of Figures

Figure 1.1: Structure of the thesis	25
Figure 2.1: Management accounting change	51
Figure 2.2: Shift of trends	70
Figure 2.3: Bullock and Batten's model of change	79
Figure 2.4: Activities contributing to effective change management	83
Figure 3.1: Process of institutionalization	93
Figure 3.2: Lewin's Field Force Analysis	98
Figure 3.3: The process of change	98
Figure 3.4: Changes pressures in Greek HEIs	105
Figure 3.5: Management Accounting Change Institutional Process	109
Figure 3.6: MA change process from a managerial approach	114
Figure 4.1: The research "onion"	136
Figure 4.2: Research choices	154
Figure 4.3: Confirmation and comprehension: Related concepts	157
Figure 4.4: Sequential Mixed Method Research Design	162
Figure 4.5: Current research "onion"	176
Figure 5.1: Implementation of accrual accounting according to the implementation's and HEIs' type	226
Figure 5.2: Implementation of accrual accounting according to the starting year and HEIs' type	227
Figure 5.3: Full implementation of accrual accounting according to the HEIs' type and age	229
Figure 5.4: Full implementation of accrual accounting according to the HEIs' type and location	230
Figure 5.5: Full implementation of accrual accounting according to the HEIs' type and size	231
Figure 5.6: Full implementation of accrual accounting according to the HEIs' type and category	232
Figure 6.1: Respondents and non respondents according to the HEIs' type	254
Figure 6.2: Respondents according to the HEIs' type and categories	255
Figure 6.3: Respondents according to the total number	

of HEIs' type and categories	255
Figure 6.4: Respondents implemented the accrual accounting according to the HEIs type	257
Figure 6.5: Respondents implemented the accrual accounting according to the total HEIs that implemented the accrual accounting system	258
Figure 6.6: Respondents implemented the accrual accounting according to the starting year and HEIs' type	259
Figure 6.7: Respondents implemented the accrual accounting according to the starting year and HEIs' type	260
Figure 6.8: Institutional forces according to the respondent HEIs	263
Figure 8.1: Sequential Mixed Method Research Design	348

List of Boxes

Box 3.1: The Field Force Analysis	97
Box 6.1: Questions placed in pilot study	248

Abbreviations

ABC	Activity Based Cost
COM1	Component 1
COM2	Component 2
COM3	Component 3
ESYL	National Council for Accounting
FEE	Federation des Experts Comptables Europeens
GASB	Governmental Accounting Standards Board
HEI	Higher Educational Institution
HEIs	Higher Educational Institutions
IT	Information Technology
KATE	Centre for Higher Technical Education
KMO	Kaiser-Meyer-Olkin
MA	Management accounting
NBR	National Budget Report
NBRs	National Budget Reports
NIS	New Institutional Sociology
NPM	New Public Management
OECD	Organization for Economic Cooperation and Development
OIE	Old Institutional Economics
P.D.	Presidential Decree
PhD	Doctoral of Philosophy
SAPOPS	Sectorial Accounting Plan for the Organizations of the Public Sector
SIAS	System of Integrated Accounting Surveillance
TEI	Technological Educational Institution
SPSS	Special Statistical Software
TEIs	Technological Educational Institutions
U.S.A.	United States of America
UK	United Kingdom

“Change is the only constant”

(Heraclitus, Greek philosopher)

CHAPTER 1

Introduction

1.0 Introduction

The current study focuses on providing an answer to the question of how Higher Educational Institutions (HEIs) in Greece responded to governmental pressures for accounting reform during the decade of 1998-2008; specifically, it focuses on the extent to which HEIs implement the accrual accounting system and the influence of the isomorphic and intra organizational dynamics on its implementation. The aim of this enquiry is to assist in providing a deep understanding of the external and internal organizational dynamics that influence the adoption and implementation of the Management Accounting (MA) systems, resulting thus, to new daily accounting practices within certain organizations. The current study is not limited in researching the various ways in which the Greek HEIs cope with the management of the change pressures but also aims towards studying the effect of the internal and external institutional environment within which organizations operate. This institutional environment exerts influence on the behavior of the organizations with regard to change.

Specifically, this chapter outlines the nature and scope of this research and it unfolds into five sections. The first is concerned with the research's background and provides a review of the accounting reform and the accrual accounting system implementation setting within public sector entities and HEIs, in particular. Introducing the research starting point, this section highlights the importance of studying the process of change

and thus, understanding in a better way and explaining the HEIs' responses to change demands. The next section highlights why Greek HEIs is the case study of this enquiry by stressing on the peculiarities of the Greek higher education system. The third section demonstrates the significance of this enquiry in terms of both theory and practice. It analyzes the research problem and poses the research questions and objectives. The fourth section outlines the structure of the thesis, thus introducing the following chapters. Finally, in the last section, a summary of the current chapter is briefly provided.

1.1 Background to the study

The responses of certain organisations, such as HEIs, to the demands of their institutional environment are central to this study. All types of organisations ranging from small or large to profit or non-profit, regardless of their annual financial figures, seem to be subject to the process of change. In today's economic climate and under the existing political and social conditions, it is inevitable for organisations to consider and/or undergo some form of change (Akin & Palmer, 2000; Burke, 2002; Heracleous & Barrett, 2001; Piderit, 2000). They have to respond to an intensive, continuously changing and competitive business environment created by consumers, suppliers, markets, shareholders, economy, technology and society. Their success and survival depends on their ability to sufficiently respond to these demands and to appropriately and effectively exploit their resources (West et al., 2004). As a consequence, organizations are being challenged towards the implementation of imminent and crucial changes regarding the existing organizational management models, instruments and

accounting methods as past, and even recent practices, may no longer be applicable (Bridges & Mitchell, 2000; Burns & Vaivio, 2001; Guerreiro et al., 2006).

In this term, the recent decades, the public sector has experienced relevant to MA reforms aiming to the use of limited resources in an efficient manner and following the demand for “doing more by less” so that it would be ensured that public sector would be managed “at minimal cost to society” (Wynne, 2003, p. 1). Public sector organizations aimed to the reform of the existing MA practices so that to become more efficient and accountable regarding the acquisition and use of the public sector resources, adopting thus practices and techniques of private sector (Pina et al., 2009; Pina & Torres, 2003). This shift towards the adoption of private business sector management practices and techniques and a more entrepreneurial and business management style, is referred to as New Public Management (NPM). According to Hughes (1998, p. 148), NPM or alternatively managerialism is seen as

“a concerted program of public sector reform aimed at replacing administration by management, replacing formal bureaucracy by markets or contracts as far as possible, and reducing the size and scale of the public sector”.

Pollitt and Bouckaert (2000, p. 17) also defined NPM as “deliberate changes to the structure and process of public sector organisations with the objective of getting them (in some sense) to perform better”. In other words, NPM refers to the introduction of private sector practices into the public sector entities aiming to the improvement of public sector governance, accountability and control (Ellwood & Newberry, 2007; Pallot, 2001). Amongst the distinctive characteristics of NPM are an emphasis on

customer choice and on stakeholders as well as on managerialism, by providing managers with power for a wide range of decision making. It is also a greater scope for individual and private sector provision, increased market competition for public goods and more emphasis on performance measurement; the separation of the purchaser role from the provider role, and the flexibilization of the conditions of work and employment (Pollitt & Bouckaert, 2000; Wynne, 2003). The advocates of the NPM view claimed that the traditional public management's bureaucracy inhibited effectiveness while the private sector principles and management techniques were the most efficient and appropriate for the allocation of scarce resources (Minogue, 2000).

In this term, NPM reform affected the promotion of an accounting reform, with accounting to be expected to play a major role in providing new forms of financial information. Accurate and comparable financial information would be utilized towards the improvement of the public sector's performance measurement, accountability and decision making in order to achieve efficiency, effectiveness and economy. Especially, the use of accrual accounting systems as well as accrual basis systems of reporting have been considered as a key component of the NPM and the key change component (Broadbent & Guthrie, 1992; Deaconu et al., 2011; Guthrie et al., 2005; Olson et al., 1998; West & Carnegie, 2010). This view was broadly supported, even though, with the public sector using cash accounting and budgeting and the private sector implementing accrual basis accounting systems, the adoption of cash basis or accrual basis accounting systems and practices have been considered as an important variation between the private and public sector (Tiron Tudor & Blidisel, 2007). Despite of the problematic and inappropriate reforms experienced in some cases, Barton (2009) highlighted the

importance of implementing the accrual accounting systems in public sector due to the significant improvements in public resource management, accountability and performance. Indeed, literature has provided fruitful evidence of an international orientation towards the adoption of the accrual basis systems in public sector organizations instead of the cash basis accounting and many countries have followed the new tendency investing in the public sector modernization and adopting the new accountancy systems with respect to their own specific needs (Deaconu et al., 2011; Olson et al., 2007; Tiron Tudor & Blidisel, 2007). It is not notable to refer that this accounting reform is also known as new public financial management reform implying the rationale behind the reform and the technology used are based in financial practices (Olson et al., 1998).

In a similar way, as part of the broader public sector in local governments, HEIs have been also affected by the public sector accounting reform. The corporate and commercial environment created by the government policy called for HEIs to change and be able to address the new challenges exerted by the environment (Moll, 2003). In this term, universities have been considered as providing the appropriate knowledge as well as skills supporting the workforce and the national economic status in a global competitive market. Burke (2002, p. 7) stated that:

“Institutions of higher education no longer exist exclusively in the non-profit sector.....So, even in the domain of higher education which includes some of the oldest, most traditional types of organizations in the world, the external environment is changing”.

As part of the government policy, the expansion of the higher education has challenged the increasing students' number, on the one hand, and the continuously decreasing public funding, on the other hand. Both of them emerged the discussion in regards to the productivity and efficiency of public funding HEIs and led HEIs to the enhancing and developing entrepreneurial policies and practices. Private sector accounting practices and budgeting features have been broadly considered as appropriate for the new organizational forms of HEIs responding to the new government policy and the effective use of resources (Marginson & Considine, 2000). The new accounting practices comprised of methods such as budgeting, enhanced annual reporting, key performance indicators, accrual accounting, performance auditing, and identification of costs (Deaconu et al., 2011; Hodges & Mellett, 2003; Pallot, 2001). Consequently, change for the HEIs appeared to be inevitable and unavoidable. Thus, studying the process of change is very crucial since a better understanding of change management will constitute a main determinant for achieving a successful change.

1.1.1 New Public Management and accounting reform

Public sector reform was evidenced as an inevitable consequence since it failed to cope successfully with the financial problems and to the efforts towards maintaining economic growth. Criticism has underlined the inefficient and ineffective provision of both quantity and quality services by the public sector entities while it has been characterized as too large, costly and bureaucratic, unable to respond to public needs (Jones & Kettle, 2003). Therefore, governments pressures related to the worldwide political, social, economic and technological changes have created an imminent need for and have resulted to the public sector reform; it could constitute a valuable tool in

the quest of governments towards the sustainability of social development and economic growth. According to Savas (2000, p. 3) this reform aimed to “minimize the role of government and increase the role of other institutions of society in producing goods and services”. This aim would be achieved through the commercialisation, corporatisation and privatisation of public sector organizations (Gomez & Jomo, 1999; Potter, 2002). The adoption of NPM by governments has aimed towards the provision of a commercial like orientation within the public sector. This public sector orientation towards commercialism has included additional to competition concepts such as “performance-based contracting, service delivery, customer satisfaction, market incentives and deregulation” (Savas, 2000, p.318). All these concepts would be justified on the basis of the resulting efficiency, effectiveness, and accountability of public sector entities (Buhr, 2010).

As a result, in the recent decades there has been a remarkable wave of management accounting techniques which have mirrored the NPM principles and practices. In particular, in many countries the economic rationale, namely, the fiscal problems prevailing in the government sector, have led to the realization of financial management reforms. Public entities were requested to improve fiscal policy and to operate in an efficient and effective manner by emphasising on cost savings and resource allocation. This means that public organizations should be rendered fully accountable and managerialism was seen as an appropriate approach that would guide towards the economic welfare of public entities (Hood, 1995; Hopwood, 1990; Hoque & Moll, 2001). This in turn means that improved and accurate information should become available by using new management accounting techniques such as accrual accounting.

Management accounting and budgeting changes and reforms performed thus in the public administration system of various countries and a strong movement towards the implementation of the accrual accounting is viewed as a prerequisite for the provision of accurate managerial and financial information supporting thus the accounting reforms (Christiaens & Van Peteghem, 2003; Cohen, 2007; Cohen at al., 2007; Lapsley, 1999).

Indeed, financial accounting reforms have been adopted and implemented in many countries by establishing accrual basis accounting systems while abandoning the cash basis accounting system (Christiaens, 2001; Christiaens & Rommel, 2008; Christiaens & Van Peteghem, 2003; Hoque & Moll, 2001; Richardson & Cullen, 2000; Venieris & Cohen, 2004). Accrual accounting, as an important management accounting innovation, has been seen as key towards the pursuance of the principles of NPM, namely efficiency, effectiveness, transparency and accountability (Lapsley, 1998; Lapsley & Oldfield, 2001; Likierman, 2000; Lye et al., 2005). According to Carlin and Guthrie (2000, p. 3) accrual accounting has been seen as a means of shifting from the traditional public management to the NPM and it was not considered as

"an end in itself, but rather, as a means of shifting the emphasis of the budgetary process away from cash inputs, towards outputs and outcomes, in the hope that this will result in greater management efficiencies, and hence, better outcomes for Governments and the communities they serve" (Carlin & Guthrie, 2000 p.3).

These new practices of the accrual basis accounting were believed to cater towards improving revenues, the measurement of costs, providing a greater focus on the efficiency and effectiveness in the use of resources as well as, in terms of outputs,

better performance measurement and enhanced accountability. Several studies have shown that many countries have adopted various elements and features of the accrual basis accounting and they are willing to implement more of its elements and aspects in the future (Luder & Jones, 2003; OECD, 2000; Paulsson, 2006). Countries like the U.S.A., the UK, Australia and New Zealand have been the pioneers towards the adoption and implementation of a new type of management for the public sector, which was also accompanied by a reform in the relative accounting practices. Many countries followed the same path, such as the Scandinavian countries, the Netherlands, Spain, Italy and Belgium. Also, other countries, from a range of geographical areas, have implemented similar programmes via the introduction of different kinds and/or to a different extent of public sector accounting and financial management. That is, different nations adopted different kind of responses to the accounting reform trend, mainly interpreted in terms of the different national context, with specific social, political, cultural and economic elements.

1.1.2 Previous research studies

Given the fact that accounting change has become a central issue and has widely accepted as the method of strengthening financial accountability and controlling scarce resources within public sector organizations, MA change has been an issue of increasing debate during the last twenty years. The emerging debate has come around the issue of MA change and more specifically, if MA has or has not or should change (Burns & Scapens, 2000). As a consequence, a numerical increase of empirical research studies on the practice of MA change has been realized covering a variety of business sectors and countries while a number of research methods and research perspectives

having been applied (Burns & Vaivio, 2001). These studies have considered changes in MA as these ranges from existing management accounting systems' minor modifications to changes of importance and significance. Furthermore, a growing number of studies have been dedicated to the public sector accounting reform (Arnaboldi & Lapsley, 2009; Burns & Scapens, 2000; Christensen, 2002, 2003; Clarke & Lapsley, 2004; Gurd & Thorne, 2003; Guthrie, 1998; Hoque et al., 2004; Hoque & Moll, 2001; Luder & Jones, 2003; Monsen, 2002; Padovani et al., 2012; Pettersen, 2001) exploring the role and the impact of MA on public sector reform.

However, even though modernisation of MA was encouraged by a multitude of factors, there is no sufficient evidence of successful modifications of the new accounting systems within the public entities. Academic criticism of NPM supported that "there is little evidence that the application of reform strategies based on New Public Management actually leads to the desired results" (Christensen & Laegreid, 1999, p. 1). Also, the validity of the transformation to the accrual accounting for less developed countries has been argued such as:

"both the effectiveness of the reforms in countries where they have been implemented and their suitability for transition economies remain the subject of debate among academics as well as practitioners" (OECD, 2001, p. 21).

In spite of the rationale and accuracy of applying accrual accounting systems in public entities that has been supported by many studies, however, there are some critical about it and the expected gains (Barton, 1999; Guthrie, 1998; Guthrie & Humphrey, 1998; Guerreiro et al., 2006; Guthrie et al. 1999; Hoque & Moll, 2001; Hyvönen & Järvinen,

2006; Lapsley 1998, 1999; Mellet, 1997; Monsen, 2002). For example, Mellet (1997) and Barton (1999) have criticized the alleged superiority of the accrual basis accounting over cash accounting within the context of the public sector. Guthrie (1998) and Monsen (2002) have questioned the appropriateness and usefulness of the application of private sector like techniques in organisations of the public sector. Furthermore, they have identified many obstacles when applying private sector techniques in public sector organisations. Moreover, it has been notified that even though accrual accounting is applied in public sector organizations it does not secure that cash based actions and thinking have been abandoned (Hyvönen & Järvinen, 2006). More over, there has been broadly warning about the fact that research in accounting has not had the anticipated effect on business practice (Guerreiro et al., 2006). It has been suggested by some researchers that the fundamental differences between the public and private sector in terms of objectives and resource allocation systems, such as in the higher education sector, may have been the reasons behind the reluctance in supporting the introduction and adoption of accrual basis accounting in the public sector (Barton, 1999). This lack of consensus may be due to the fact that an appropriate theoretical framework for the public sector entities is still undeveloped. It is also argued that change in accounting was likely to be constrained and low rather, than frequent and extreme, due to the traditional view of accounting “as a bastion of conservatism” (Sulaiman & Mitchell, 2005, p. 423).

In response to the competitive environment, HEIs have adopted a more “business-like orientation” and private sector MA techniques in order to become more efficient, effective, and accountable (Moll, 2003). According to Demartini (2004), the relative

issues such as the modernization of the MA systems, the management control, performance measurement and the external financial reports of the universities gain continuously more interesting for the academics and for those who apply accrual accounting. The modernization of the accounting system was seen as an approach that was significant, and one, which could improve the status of efficiency for the HEIs. However, HEIs would need to modify and adjust the private sector traditional accounting systems before applying them. It is argued that HEIs are experimenting with various forms of confrontation between effectiveness and the obligation/ability for efficient use of resources. It is important to be regarded that if the HEIs submit unquestionably to the calls of the private sector for effectiveness, they then may risk their status as the creators and disseminators of knowledge and not seeking to make profit (Demartini, 2004). Therefore, the cost and performance systems of HEIs are needed to employ the appropriate tools modified for the particular use of their needs. This would facilitate the success performance accounting and the achievement of efficient budgets (Groves et al., 1994; Kuepper, 2003; Scapens et al., 1994).

Nevertheless, it is argued that little success has been evidenced in Europe with regard to the introduction of MA techniques and accrual basis accounting in HEIs (Christiaens & Wielemaker, 2003; Venieris & Cohen, 2004). The issue of performance measurement and accounting for HEIs was one of the topics examined in a European Accounting Association Congress Symposium under the mediation of Lapsley (Spathis & Ananiadis, 2004). The focus of the symposium was on the importance of performance measurement systems and of accounting in HEIs. The existing management structures have caused many problems in a large number of HEIs. The introduction of new

accounting systems in public universities were associated with various problems related to the reformed academic accounting legislation concerning the accounting practices regulations as well as the comparability of the annual reporting. Indeed, various empirical research studies revealed that public sector HEIs was usually faced with numerous problems following the introduction of public sector accounting. In addition, various accounting techniques across a range of different countries and cultures, together with a strong heterogeneity and topical differences in MA practices and disclosure, have been found to exist (Christiaens & Wielemaker, 2003). For instance, a cost survey of accounting practises used in Italian universities was presented by Cinquini et al. (2000) who found that a difference existed between universities, with regard to the speed of implementation of new techniques in accounting. Indeed, MA techniques have been adopted by a limited number of universities. This fact posed a difficulty in the attempt to prove that a clear relationship existed between the complexities of the issue. Crooper and Cook (2000) undertook a study on the implementation of ABC by UK universities during the years 1993, 1998 and 1999, in which they analyzed the progress made. The findings suggested that implementation was slow, but this was about to change due to the imposition of pressure, since coercive forces from the government and other funding bodies were to be exerted on them. Christiaens and Wielemaker (2003) conducted an empirical study on the implementation of financial accounting reforms in Flemish universities in Belgium. Presenting an overview of the accounting reform and the effectiveness experienced, they highlighted the limited success of the combined use of the traditional budgetary accounting system and the new accounting system. Furthermore, Arnaboldi and Azzone (2004) performed a case study of Italian universities in which they investigated the

process of implementation of the new MA techniques in the public universities' following the introduction of a new MA system and pointed out the difficulties incurred during the implementation phase. Finally, Pettersen and Solstad (2007) investigated the role of budgets and accounting information's interpretation and usefulness in the managerial activities in the Norwegian HEIs, at the time of the introduction of new managerial reforms in Norway. The research findings indicated the loose coupling between the accounting information and the managerial activities of the HEIs as well as the absence of interactive control processes.

From the above discussion it is summarized that in reforming public sector organizations, including public sector HEIs, the constitutive role of accounting in the creation of a new organizational reality has been acknowledged. In particular, an increasing number of research studies regarding the practice of accounting are seemed to concentrate on conceptual issues as well as the implementation of accounting systems. However, it is claimed that the portrayed increase in interest towards researching accounting reforms within the context of public sector organisations has not been followed by a respective increase of research into HEIs accounting practice (Christiaens & Wielemaker, 2003). A limited number of studies have been conducted into the specific context of public higher education sector in which the NPM principles and private sector's management models seemed to be problematic and/or unsuccessful in some cases. The difficulties encountered in this process are usually related to culture, constitution structures, motive, or technology. In addition, it is these difficulties that render the global transfer of systems and ideas problematic (Pallot, 2001). There are references regarding the need for further studies that will concern the wider social

context within which organizations operate as well as the dynamic of the continuously increasing market oriented environment in which organizations is need to offer services, with regard to the educational goals (Lapsey & Pettigrew, 1994). Lawrence and Sharma (2002) argued that there are not many empirical studies that are concerned with the management techniques, as they are applied from the private to the public sector of higher education, within a specialized context.

Consequently, given that accounting reform is a significant and ongoing phenomenon as well as questioned approach, this enquiry concentrates on a particular accounting reform issue, such as the adoption and implementation of a new accounting system in certain organizations from a hybrid institutional and managerial perspective. In particular, this study focuses on providing answer to the question of how HEIs in Greece responded to governmental pressures for accounting reform during the decade of 1998-2008; specifically, it focuses on the extent to which HEIs implement the accrual accounting system and the influence of the isomorphic and intra organizational dynamics on its implementation. Based on the research problem, next section highlights why Greek HEIs is the case study of this enquiry by stressing on the peculiarities of the Greek higher education system.

1.2 Greek higher education system: The case study

Based on the above argument, the current study aims to contribute to this research gap by examining the accrual basis accounting system adoption and implementation within the specific setting of the Greek HEIs. Public institutions of higher education in Greece include universities and Technological Education Institutions (TEIs) that are the sole

providers of tertiary education in Greece. Article 16 of the Greek constitution clearly states that all HEIs are legal entities of public law and also that they are self-governed bodies. The State finances and supervises the HEIs and they are organized in line with specific statutory laws that govern their operations. According to Saitis (1993, p. 115)

“With the term “self-governed” the Greek legislator intends that the academic institutions of higher education should enjoy the authority to select their teaching staff and administrative officers, make decisions about their affairs and carry them out under the “supervision” of the State and in particular of the Ministry of Education”.

According to Gouvias (2007, 2012), the Greek constitution has identified that free education is provided at all level of the education system and for almost every dimension of its every-day operations including tuition fees and textbooks, accommodation and food in most cases. This is something that clearly differentiates the Greek higher education system from most contemporary European policy frameworks regarding higher education sector as most of the European countries charge fees for the above provisions. Thus, the author stated that Greek higher education system is one of the most resistant against the introduction of market-oriented reforms in education (Gouvias, 2007). Indeed, NPM principles and techniques have not yet been applied in Greek HEIs due to the centralized political structure as well as the Greek educational tradition which do not allow for common trends in reforming the institutional framework similarly to those in other European countries. For example, in countries such as Germany, Britain and Spain, which are more decentralized, it is easier the promotion of such changes. Papandreou (1998, p. 23) noted that

“Greece is obviously a long way from making those qualities part of its social and educational structures, and we have long way to go make the necessary changes in order to confront the challenges with which such transformation can come about”.

The existing contextual framework regarding the structure and the operation of the HEIs poses multiple restrictions in their autonomy and independence and makes their operation cumbersome. Thus, it restrains them from any innovative and transformation efforts. Keridis and Sfatos (1998, p. 174) called the Greek university “a behemoth, unable to respond to the changing social environment and demands”. According to Gouvias (2012), in the Greek higher education system there is a considerable degree of bureaucratic inertia that keeps resisting radical changes in a variety of areas concerning teaching, learning and administration. It is also notable that

“Even in a centralized system, such as the Greek one, there is always room for individual initiative and resistance to top-down decision-making models, if we take into account the 30-year-long tradition of academic and administrative autonomy of the HE faculty, ...”(Gouvias, 2012, p. 81).

All the above opposing views reflect the interest that this study encountered in its attempts to explain the adoption of accrual accounting system in the specific and reluctant to change setting of Greek HEIs which seem to operate in opposite dynamics, like the two different sides of coin. Even though they are organized and structured on a strictly centralized basis system, at the same time, they have space to resistant to top-down decision-making such as government legislation. This is possibly explained due to the long time transition of their academic and administrative autonomy that enforce the empowerment of rather a contradictory dynamic than positively facing the transformation efforts.

The particular period of the study was chosen for a variety of reasons. The structure of the frame of the external institutional environment of the Greek HEIs regarding the accounting reform derived from the government's political willingness in 1996-1997 and which the Greek legislator provided finally in 1998. Indeed, the reform of the accounting system in the Greek public sector - including the Greek HEIs - was announced initially in 1997 and was promoted later with the Presidential Decree (P.D.) 205/1998. In the latter part of 1998, the P.D. 205/98 was passed and demanded the implementation of accrual accounting by the public sector entities. This included the higher education sector in its entirety. The rationale was based on a sectoral accounting plan focusing on the maintenance and issuance of proper documentation regarding financial, cost and budget accounting. The deadline for the implementation of the accrual accounting system by the HEIs was specified at the beginning of January 2000 but it is noticeable that the process was an ongoing one despite the expiration of the official date.

Since then, a series of legislative reforms and tremendous changes were undertaken in the Greek higher education sector during the period 2004-2007 challenging thus the autonomy of HEIs in administrative issues, the structures of studies, the assessment of both academics and students and their funding (Georgiadis, 2007; Gouvias, 2012). Obviously, the trend of education followed a new direction towards the total restructuring of the Greek system of education since it was viewed as a key component of economic competitiveness at an international level (Georgiadis, 2005; Ball, 2007). The major reforms experienced during the period 2004-2007 in the higher education sector can be classified into quality, efficiency and performance and are related

basically to Laws 3374/2005 and 3549/2007. However, one of the most important attributes of these reforms was the introduction of a new funding system for HEIs with the association of the planned assessment of the Greek HEIs with the future planned funding being provided by the State. Assessment and quality indicators towards the improvement of the HEIs, responsibility and accountability in terms of their academic programmes, staff and resources were demanded to be identified by the legislation. Legislation was referred to indicators and quality measures focusing on common standards and procedures for efficient investment and sufficient and sustainable resources that effectively respond to the new challenges (Georgiadis, 2007) with accrual accounting to be more than ever demanded as providing accurate information regarding financial statements and decision making. Thus, it is clear that during the period 1998-2008 the State sought rigorously the implementation of NPM techniques such as the adoption of accrual accounting in the higher education sector. In addition, due to the developments shown above, this particular time period allows for the measurement of variations between and amongst same group members.

Furthermore, the starting year 2008 of the empirical research proved later as a landmark for the current enquiry. The austerity measures underway due to the economic crisis in Greece forced many of the academic and administrative staff of the HEIs to retirement at the end of 2009 in order to secure their pension schemes and avoid losing their benefits. It is expected that members of the Financial Departments who participated in the current study and were all very experienced and knowledgeable of the accounting reform that was attempted in their institutions started retiring during the same period. Even though they all had viewed the process of change in their own institutions from

day one they would not be available any further to provide accurate and useful information regarding the accounting reform experience, reducing thus the amount and sources of information available for this study.

1.3 Research problem and questions: the significance of research

The current study focuses on providing an answer to the question of how HEIs in Greece responded to governmental pressures for accounting reform during the decade of 1998-2008; specifically, it focuses on the extent to which HEIs implement the accrual accounting system and the influence of the isomorphic and intra organizational dynamics on its implementation. The aim of this enquiry is to assist in providing a deep understanding of the external and internal dynamics that influence the adoption and implementation of the MA systems, resulting thus, to new daily accounting practices within certain organizations. The current study is not limited in researching the various ways in which the Greek HEIs cope with the management of the change pressures but also aims towards studying the effect of the internal and external institutional environment within which organizations operate. This institutional environment exerts influence on the behavior of the organizations with regard to change. Newton (2002, p. 207) stated that “there is a difference between the planned outcomes of policy and those which emerge through implementation...Arguably; the “real makers of policy” are policy users”. Indeed, with respect to the findings of an empirical study conducted by Newton (2002), the staff of university, not mutely accepted change and thus “there are not simple prescriptions for managing change in complex circumstances” (Newton, 2002, p. 209). It is also claimed that the plurality and the bureaucratic nature are characteristics of the universities that render the process of resistance to change as

cumbersome. Professionals within universities vary and the differences between groups are likely to create conflicts while bureaucracy gives rise to the phenomenon of inertia. These act as restraining forces in favour of the existing structure of the organisation and to the expense of change and efficiency. Governing and managing this diversity as well as the stimulation of change by organisational executives is a very complex and tedious process which usually embeds ambiguity and paradoxes (McRoy & Gibbs, 2009; Meister-Scheytt & Sheytt, 2005; Mintzberg, 1983, 1998). Specifically, it is argued that the shift from the cash to accrual basis accounting constitutes a change of conception on top of being a typical accounting system change (OECD, 2002). This means that the financial departments' human resources within the HEIs are the key actors of the change process. Related to this, the aim of the study is to understand in depth and explain the key role of the isomorphic and intra organizational dynamics which have been mobilized in order to make the determined MA accounting change succeed. These dynamics will be investigated and explained in terms of the integration of institutional theory strands and organizational theories related to change. Academic researchers have not interested widely on the issue of the process of change. Organisational change studies on relevant issues and theoretical frameworks developed are overwhelmed with changes and not with analysis of the changes (Burns & Scapens, 2000; Greenwood & Hinings, 1996; Innes & Mitchell, 1990; Kasurinen, 2002; Ribeiro & Scapens, 2006; Siti-Nabiha & Scapens, 2005). Greater focus is placed on the content or problems of the organisational change rather than in the process of change and how it is accomplished and associated with the institutional pressures (Munir et al., 2011). The current study, given the importance of change process, focuses on its dynamics and how they influence the change outcomes.

Consequently, this inquiry aims to contribute to the growing body of literature of MA accounting and change that combine OIE and NIS perspectives with change management theories and to provide major implications for the use of accrual accounting system in public sector organizations, such as higher education sector institutions. With respect to this specific research area, twofold objectives have been considered to be achieved via this study concerning theoretical and practical aspects equally. The theoretical objective of this thesis is to develop a valuable theoretical framework by using complementary various theoretical strands and perspectives. This theoretical framework will provide an analytical interpretation of the accrual accounting system implementation within certain organizations and will prove to be beneficial in exploring and in gaining an in depth understanding MA change implementation. The second objective is the empirical investigation of the accrual accounting system implementation in certain organizations. Literature review demonstrates that MA change is of major importance for top management and for organizational actors. Accordingly, this study aims to contribute to empirical experience by focusing on a specific context considering the Greek HEIs. In particular, the current study's practical objective is to explore the adoption and implementation of the MA systems, resulting thus, to new daily accounting practices within each individual Greek HEI. The findings of the empirical study are expected to provide organizational actors with a further understanding of the MA change and the influence of intra organizational dynamics on the accounting change process. According to Burns (1999, p. 568)

“In particular, through understanding the dynamics of (organisation-specific) processes of change, managers will be better positioned to influence the path of change programmes within their own organisations, as well as anticipate potential problems along the way.”

Based on the above discussion the main research question of this study is addressed as follows:

Did Greek HEIs adopt the accrual accounting system during the decade 1998-2008 and how did the isomorphic and intra-organisational dynamics influence it?

Related to the research problem five sub research questions have been posted:

- 1. To what extent did government exert pressures on the Greek HEIs to change their existing MA system, for example to implement the accrual accounting system?*
- 2. To what extent did Greek HEIs respond to the isomorphic pressures to change their existing MA system, for example to implement the accrual accounting system?*
- 3. How did intra organizational dynamics such as institutional dynamics and change dynamics influence the accrual accounting system implementation?*
- 4. To what extent did intra organizational dynamics result in using new routines of accrual accounting system within Greek HEIs?*
- 5. How the empirical findings provided by the extensive investigation of the research problem in the Greek higher education sector support the theoretical considerations implied by the employed theoretical framework in this study?*

Furthermore, this empirical research will be based on a mixed method approach which is considered a beneficial component of any study (Creswell, 2002; Creswell & Plano Clark, 2007; Harwell, 2011; Thurmond, 2001). Providing thus a clear structure to be drawn, the current study will adopt a mixed method research approach aiming to corroboration/confirmation of the research findings and the comprehensive and deeper understanding of the phenomenon under investigation.

1.4 Outline of the thesis

The current thesis is unfolded in three sequential sections. In specific, they are related to theory and theoretical considerations (Section A), the research methodology and the empirical investigation undertaken for the scope of this study (Section B), and the confirmation and comprehension of the results by integrating the findings of the study (Section C) (Figure 1.1).

The first section (Section A) is allocated in two chapters. The first chapter reviews the research literature on institutional theory and its strands such as OIE and NIS, and the most relevant theories of organizational change, such as the change in MA systems and processes. Light is shed on issues such as reasons behind accounting change, the driving and embedding of dynamics and their interactions, phase models of change toward gaining a successful insight in the respective field. The second chapter (Chapter 3) discusses institutional perspectives that have adopted to conceptualise and explain MA change. It provides insights which have shown that an institutional theory perspective can constitute an alternative theoretical framework in explaining and interpreting change in MA experienced in specific setting and concludes with a

comprehensive change management framework based on a hybrid institutional theory approach and change management theories.

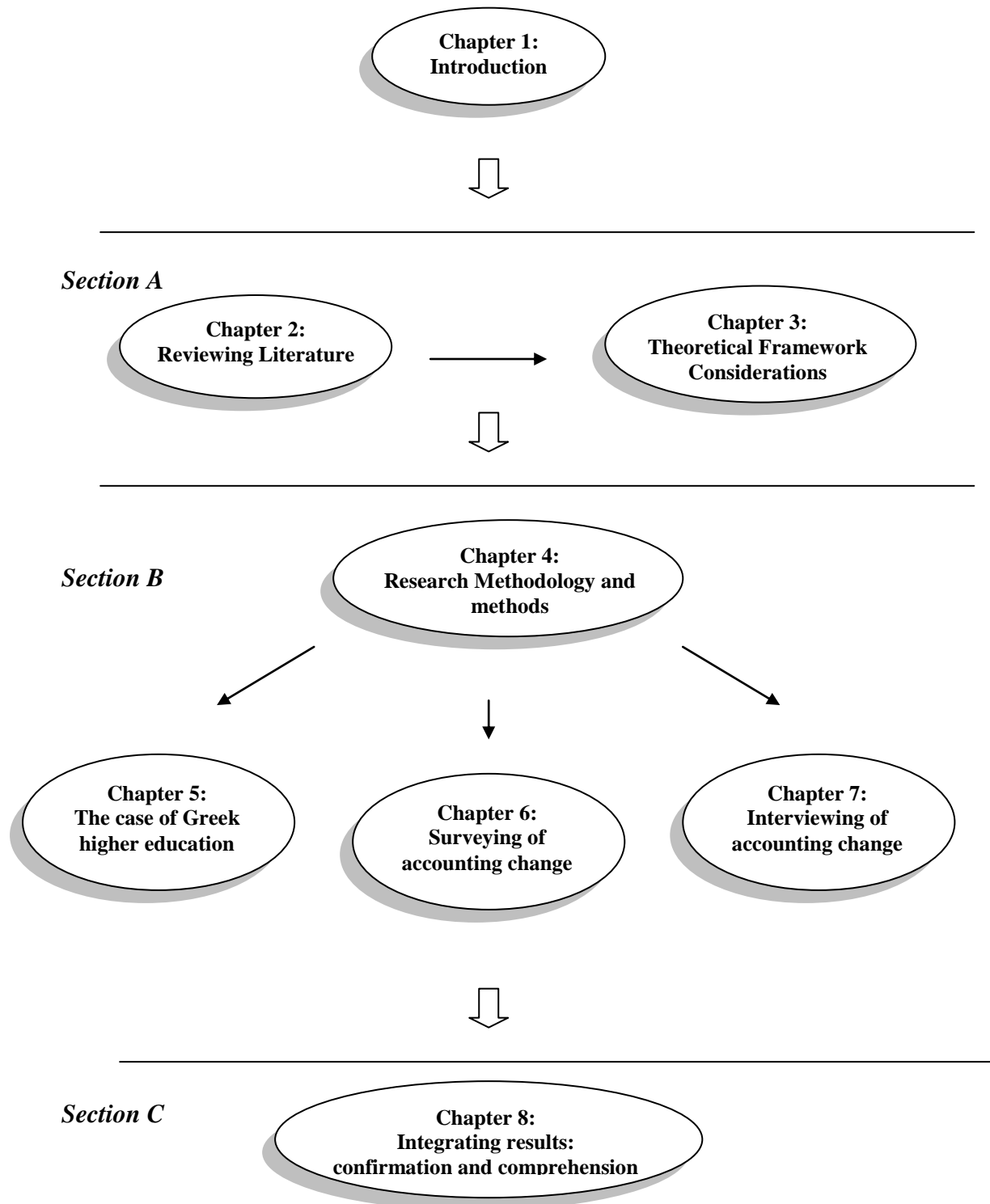


Figure 1.1: Structure of the thesis (Author's own).

The second section (Section B) is divided into four chapters. The first chapter (Chapter 4) is concerned with the methodology's philosophical assumptions and strategic approaches respectfully to both the literature and the scope of the current study. In specific, it discusses analytically the mixed methodology research approach together with the employment of qualitative and quantitative methods of data collection and analysis. Next chapter (Chapter 5) presents a detailed and comprehensive qualitative and quantitative analysis of the collected data based on the extant literature and the findings based upon previous studies and governmental documents. These are considered as being a valuable asset in the process of making inferences and providing answers to the research questions related to the macro- level institutional forces emerged and influenced the accounting reform attempted in Greece during the decade 1998-2008. Specifically, it reaches the analysis of the environmental determinants through an institutional approach, in order to deeply understand the institutional dynamics of the external HEIs' environment that have influenced the adoption of the accrual accounting system within them. Furthermore, the extent to which the Greek HEIs have responded to these is examined and analyzed in terms of the type and category of each individual institution. In this chapter, a micro- level analysis of the institutional and change dynamics activated towards the implementation of the accrual accounting and forming the response of each HEI will be attempted. The following chapter (Chapter 6) presents and analyzes the findings of data collected by undertaking a survey of the attitudes of senior management in thirty eight public Greek HEIs, universities and TEIs, on the experienced accounting change during the decade 1998-2008. In addition, findings of data collected are analyzed mirroring the extent in which daily accounting practices (routines) have been adopted towards the full

implementation of the accrual accounting system within each individual Greek HEI. The final chapter (Chapter 7) of the second section (Section B) of the thesis presents and analyzes the findings of the data collected by interviewing ten Directors of financial departments who were acting as representatives of ten respectively Greek HEIs. Respectively to the research problem, the goal of this chapter is to present the extent of the adoption of the accrual basis accounting system by the Greek HEIs and the intra organizational dynamics that had motivated and influenced its implementation under the external institutional pressures, guiding thus to new daily accounting practices and routines.

In the final section (Section C) of the thesis the findings derived from the above empirical phases of this study are integrated. This part constitutes one chapter (Chapter 8), gains the confirmation/corroborations of the empirical findings, answers the research questions and reflects a comprehensive understanding of the phenomenon under investigation. Finally, it concludes with an overall analysis of the entire research by presenting, integrating and harmonizing the results in order to be corroborated/confirmed and allow for a complete and more comprehensive understanding of the investigated phenomenon. Implications for further research are also discussed.

1.5 Summary

This chapter considered that public sector reforms have been an important area of interest during the last years. These reforms have been aligned with the demand called for improvements and radical changes in public sector. As a result, an extensive and

worldwide wave of changes via managerial and accounting reforms has taken place. During this process, the benefits of NPM have been broadly claimed such as the effective cost and revenue measurement, the efficient use of resources and the improved comparability and accountability of published results. At the heart of these new practices it was argued that accounting was a key element. It was considered that the shift from cash-basis accounting to accrual-basis accounting was the result of demand for greater accountability and transparency in the public sector. This view is adopted in this study driving towards the investigation of the phenomenon in a particular aspect such as the implementation of the accrual accounting system in the Greek HEIs.

The Greek HEIs, as a part of the Greek public sector, were faced with governmental pressure for the adoption of such private sector like accounting systems and the reform of the existing management accounting systems. All in all, the current study focuses on providing an answer to the question of how HEIs in Greece responded to governmental pressures for accounting reform during the decade of 1998-2008; specifically, it focuses on the extent to which HEIs implement the accrual accounting system and the influence of the isomorphic and intra organizational dynamics on its implementation. The aim of this enquiry is to assist in providing a deep understanding of the external and internal dynamics that influence the adoption and implementation of the MA systems, resulting thus, to new daily accounting practices within certain organizations. The current study is not limited in researching the various ways in which the Greek HEIs cope with the management of the change pressures but also aims towards studying the effect of the internal and external institutional environment within which organizations operate. This

institutional environment exerts influence on the behavior of the organizations with regard to change.

SECTION A

(Theory and theoretical considerations)

CHAPTER 2

REVIEWING LITERATURE

2.0 Introduction

It is broadly accepted that literature review supports and enables an all round understanding regarding the topic under research and explores and locates the studies that have been published and written and are relative to the research area. Literature review, also, identifies and brings together under creative criticism the relative to the research topic different views, stresses and interprets key points and proposes conclusions that are deemed to be appropriate. Furthermore, it assists in the clear and precise stating of the problem under research, the proposition of various ways of investigation while demonstrates the research problem's importance, significance and relevance (Hart, 1998). Saunders et al. (2003) suggested two main reasons for reviewing literature. First, a relevant literature review assists in generating and refining research ideas. Secondly, it helps in demonstrating the awareness of the researcher of the current subject's state of knowledge and the limitations related to it. By considering all the above, this chapter aims to an extended exploration of the literature related to the research topic of the current study.

Specifically, this chapter reviews the research literature on institutional theory and its strands, and the most relevant theories of organizational change such as the change in MA systems and processes. Issues such as the reasons behind the MA change will be discussed, as well as, the driving and embeddedness of dynamics and their interactions,

and phase models of change toward gaining a successful insight in the respective field. The current chapter is divided into four subsequent sections. The first section discusses the institutional theory and the rationale of why institutional theory assumptions have been chosen. It discusses the different institutional approaches and strands from an alignment to this study perspective and how they relate to the research area. The second section discusses the MA change in terms of its nature and reviews the preconditions and processes of change. Furthermore, it concerns the accrual accounting system considering it as a key component of MA change. Accrual accounting is regarded as a financial information system and is addressed in terms of costing information, and budgeting and financial reporting while its questioned usefulness in public sector is also discussed. The third section focuses on the understanding of the notion and the nature of change and the why and how change is triggered and affected by the dynamics of the change process as they are presented in various phase models of change. In this section, the process of change and the better understanding of the stages which take place towards the successful organizational response and reaction are discussed. Finally, the fourth section suggests a summary of the above presented theories and approaches and the common sense which derives from the above stated discussion.

2.1 Institutional theory

Institutional theory embeds a range of different views, with different origins and roots, regarding organised human behaviour. However, they share a common concern regarding institutions and institutional change (Burns & Scapens, 2000). While various explanations have been provided on how institutional forces shape human actions, the common ground among all these different views is the assumption that human actions

are constrained by current social structures. These social structures are the main product of past social interactions. Actually, institutional theory challenges the idea of the rational economically actor. According to this view actors may choose freely the best alternative, without having to consider the restrictions posed by the environment in which they operate as a part of it. Contradictory, institutional theory claims that actors' choices are to a large extent contingent on the norms, values and habits that are embedded in the social setting in which actors operate. Institutional theory considers and explores social structure issues such as rules, routines and the norms and the respective processes that render them institutionalised. It aims to provide a clear explanation and understanding in depth of the creation, diffusion or decline, adoption, adaption and/or change, and finally the institutionalization of social structure elements that guide social behaviour.

2.1.1 Using institutional theory

The current study is focusing on action and change in organisations and their respective operating environments. Organizations resemble and constitute of groups of individuals that are bound together by a common purpose in order to achieve certain objectives (North, 1990). On the other hand, they are considered as open systems and as entities which operate in a particular organizational environment and are influenced by institutions (DiMaggio & Powell, 1991; Scott, 2001b) or as a type of institution since rules exist inevitably within organizations (Hodgson, 2006). Thus, organizations and organizational action has been a subject of study and attention during the last two decades from several theoretical perspectives such as the contingency theory, resource dependence theory, population ecology as well as various strands of institutional

theory, such as NIS and OIE (Yazdifar, 2003). In particular, the subject of organizational change has been heavily and widely studied using, also, the institutional theory (Brignall & Modell, 2000; Burns, 2000; Burns & Baldvinsdottir, 2005; Burns & Scapens, 2000; Greenwood et al., 2002; Lukka, 2007; Ribeiro & Scapens, 2006; Siti-Nabiha & Scapens, 2005). Dacin et al. (2002) have highlighted the prominent role of institutional theory in explaining actions on individual and organizational level and in indicating factors that influence the organisational response to change. It is also stressed that it can provide a useful theoretical framework employed in different types of organizations and levels of analysis, from a micro- organizational level to a macro-level perspective (Scott, 2001).

It is also broadly accepted that institutional theory can provide a useful theoretical foundation for studying HEIs' organizational change which is responsive to external demands. Larsen and Gornitzka (1995) studied the planning system in Norwegian higher education using an instrumental perspective and a neo-institutional theory with the latter to explain organizational changes influenced by the external environment. They confirmed the existence of mainly symbolic effects of the planning system within institutions. Morpew (1996), studied programme duplication in a sample of American public higher education institutions during the period 1971-1993 based on an institutional perspective. They found that, even if external legitimacy did account as an explanation for why some advanced degree programmes were developed, the universities studied did not become more similar during the period of study. In their longitudinal study of curriculum development in several hundred American private colleges in the period from 1971 to 1986, Kraatz and Zajak (1996) found, that the

propositions from new institutionalism attracted surprisingly little support from their empirical analysis. They resulted that diversity instead of convergence in curriculum development was a major result. Bealing and Riordan (1996) drew on institutional theory to describe the administrative success of a university in securing increased funding through restructuring. They concluded that with respect to institutional theory normative forces reacted in the final stage of restructuring and many administrative staff resisted the change process in order to protect their professional autonomy. Gates (1997), based on the institutional theory, investigated elements of isomorphism, homogeneity, and rationalism in university retrenchment and suggested that all three isomorphic pressures led to the retrenchment of state university staff. Gates' conclusions supported previous arguments that organisations are less concerned with efficiency and effectiveness and are more concerned with legitimising their operations to key external resource providers. Czarniawska and Wolff (1998) used the NIS perspective to explain how two universities created around the same period and subjects to similar pressures of the institutional environment could lead to the survival of one and the demise of the other. Further, Bartelse (1999) studied policy innovations in the field of doctoral education by using an institutional approach. During their studies on change in quality management in the Hungarian HEIs, Maassen and Gornitzka (1999) and Gornitzka (1999) found that changes occurred in context with values, norms and beliefs that were taken-for-granted while Stensaker (2004) utilized institutional theory in his study on organisational identity change. Moll (2003) provided an attempt towards gaining a better understanding regarding the accounting control systems' operation and design. Her study was undertaken in an Australian HEI subject to an increasingly competitive environment. This study utilized a multitude of

theoretical perspectives in order to facilitate an understanding of the complexities involved and encountered in various cases of accounting control systems change including the strands of the OIE and NIS theories. Csizmadia (2006) focused on the question of how HEIs respond to coercive forces, such as to calls due to a governmental reform examining and identifying the organisational characteristics that influence the quality of management implementation within HEIs. The issue of organisational response to governmental reform was addressed from a resource dependency and a neo-institutional perspective. Finally, Papadimitriou (2011) investigated the change and stability in Greek higher education in term of introducing and adopting quality management within Greek universities, as a result of organizational practices of change. Neo-institutional theory has been employed for the aim of this study, as one of the most prevailing approaches used in explaining organizational responses to environmental pressures for change.

Given the fact that organisational action regarding change in certain organizations is the major concern for purposes of the current study, the various strands of the institutional theory have been considered to facilitate the theoretical approach in association with theories related to change management. Indeed, organizations have been viewed as being social entities and their action is influenced by institutions from both their internal and external operating environment. Furthermore, the widespread use of institutional theory strands in the higher education sector supports that it can constitute a solid foundation, on which, the theoretical framework regarding MA change in HEIs will be based for the scope of the current study.

2.1.2 Institutions and routines

Institutions are defined in various ways and no common definition is accepted as it depends on different theoretical aspects. However, there is a common view that institutions can be considered as rules, either formal or informal, which can influence political and social actors' behaviour (Keman, 1997). Institutions have been defined as "the rules of the game in a society" providing a certain structure of interaction that reduces uncertainty (North, 1990, p. 3) or as "a way of thought or action of some prevalence and permanence, which is embedded in the habits of a group or the customs of a people" (Burns & Scapens, 2000, p. 5). Boons and Strannegard (2000, p. 9) have also claimed that institutions are "action patterns that have become taken for granted within an organizational field" while Burns and Scapens (2000, p. 8) characterized institutions as "presuppositions that are shared and taken for granted, which identify categories of human agents and their appropriate activities and relations". This means that actions that are being repeated turn into institutions, which in turn exert influence on the organizational environment both internal and external. A distinction between formal and informal institutions has been proposed by North (1990). According to this, formal institutions constitute formal constraints such as regulations, economic and political rules devised or constitutions and laws enforced by the government. On the other hand, informal institutions constitute informal constraints such as "(1) extensions, elaborations, and modifications of formal rules, (2) socially sanctioned norms of behaviour, (3) internally enforced standards of conduct" and "conventions" (North, 1990, p. 40) enforced by societal members. The formal rules stand on a foundation of taken for granted rules which constitute the informal institutions of the society. On the other hand, informal constraints are considered as "extension, elaborations, and

modifications of formal rules”. This implies that formal institutions may evolve from informal institutions and vice versa.

Both formal and informal institutions are differently related to change. Formal institutions have been viewed as a locus of opportunity for change and it is considered that they can easier and more effectively than informal ones can be changed in design and/or strength. Contradictory, informal institutions are mainly considered as a resistance resource instead of being a change resource (North, 1990, 1991). They usually inhibit change as being taken for granted and influence negatively the change process. Indeed, during institutional change formal and informal constraints continuously adjust

Institutions and organisational routines are undoubtedly very closely connected. According to Nelson and Winter (1982, p. 14) routines are considered as patterns of behaviour which

"range from well-specified technical routines for producing things, through procedures for hiring and firing, ordering new inventory, or stepping up production of items in high demand, to policies regarding investment, research and development (R&D), or advertising, and business strategies about product diversification and overseas investment".

However, Hodgson (2008, p. 19) stated that “routines are not behaviour; they are stored capacities or capabilities”. Feldman and Pentland (2003, p. 96) characterized them as “a repetitive, recognizable pattern of interdependent actions, involving multiple actors” that result from organizational practices (Nelson & Winter, 1982). Furthermore,

Scapens (1994) claimed that their evolution is not an optimal behaviour but the reproduction and adaption of behaviours over time.

Routines are embedded into institutions and similarly they compile rules and norms. Boons and Strannegard (2000) have identified institutions implying the role of routines in institutions. Accordingly they stated that institutions “are to be understood as action patterns that have become taken for granted within an organizational field. Repeated actions turn into institutions that in turn, exert influence on organizations” (p. 9). Thus, routines are broadly accepted as crucial for the survival and reproduction of organizations while stability and reproducibility are used as main characteristics of routines (Cohen et al., 1996; Nelson & Winter, 1982). Indeed, in contrast with the view that organizational routines are inertia sources (Hannan & Freeman, 1989) they have also been considered as a change and stability source (Burns & Scapens, 2000; Feldman & Pentland, 2003; Quinn, 2010). Recent studies have advocated that routines are capable of enabling and/or inhibiting change either institutional or organisational. The dynamic character of routines can be affected and changed as a result of reflections and reactions of people to their outcomes. In turn, an institution can be affected by routines and transformation can take place (Feldman, 2000; Howard-Grenville, 2005). Routines can both shape and be shaped by institutions that govern their organizational activity. On the one hand, institutions are evolved through the routinization of people action and on the other hand routines can also be institutionalized, supporting thus the taken for granted ways of thinking and doing within organizations (Barley & Tolbert, 1997; Burns & Scapens, 2000).

2.1.3 Institutional theory: Some Considerations

In the literature, institutional approaches have been divided into three categories which are titled New Institutional Economics (NIE) (Foster & Ward, 1994), New Institutional Sociology (NIS) (Carruthers, 1995; Covalleski et al., 1996) and Old Institutional Economics (OIE) (Burns & Scapens, 2000; Scapens, 1994). The focus of this study is on the two latter perspectives as both facilitating and guiding this research and contributing to the formulation of the theoretical framework. It is broadly viewed that the basic assumptions of institutional theory are that institutional environments are socially constructed and organizations are open systems. In other words, institutional environments are constructed by people who act, and together with their external environment, shape the organizational structures and activities (Moll, 2003). This view is also supported by Scott (1998, p. 21):

“Every organisation exists in a specific physical, technological, cultural and social environment to which it must adapt. No organisation is self-sufficient; all depend for survival on types of relations they establish with larger systems of which they are a part.”

According to the institutional theory, organisations operate in an environment in which rules, routines and ‘taken-for-granted’ constitute appropriate and/or acceptable organisational forms and behaviour. In general, institutional environment constrains organisations and determines their internal structure as well as the behaviour of the organisational members (DiMaggio & Powell, 1983; 1991). The following sections concern two of the various strands of the institutional theory: the Old Institutional Economics (OIE) and the New Institutional Sociology (NIS). The former is related to

institutions that shape the human actions and thoughts while the latter is related to institutions that shape the systems and structures within organizations (Scapens, 2006).

2.1.3.1 Old Institutional Economics (OIE): The concept

The theory of OIE suggests that economic activities are products of the social environment implying thus that the institutional context and the embedded socially acceptable norms affect and finally determine the behaviour of people and organizations (Hodgson, 1998). It focuses on organizational routines and their institutionalization and it supports that organizational behaviour is shaped by institutionalized rules and values which evolve in specific social settings (Burns & Scapens, 2000; Scapens, 1994). It is also claimed that individuals' behaviour and societal norms embedded in the institutional context are influenced by each other and are mutually reinforcing (Hodgson, 1993).

Yazdifar (2003) discussed a multi institutional view and suggested that according to OIE, politics and society can be major sources of affecting organizational behaviour and the adoption of new systems and structures challenging thus change. However, the challenge of change may initiate conflict and resistance, with the success of change to be depended on the alignment of the new systems with the existing routines and institutions within the organization. This means that the adoption or rejection of change and the successful implementation or the initiation of conflict and resistance to the new systems is dependent on whether the norms and values that underpin the attempted change are in the same line with the existing norms and values of people involved in change and the use of the new systems. Accordingly, in an attempt to understand the

organizational behaviour and explain the emergence, sustainability and/or change over time of systems and practices, OIE focuses mainly on the process of change. It concerns more on the dynamics rather than on the change outcomes. Further, the OIE framework sheds light on institutions, both formal and informal, with the level of analysis being at individual and group actors in organizations and/or society. Summarizing, OIE focuses on providing an understanding and an explanation of economic phenomena in “processual” terms and on describing why and how particular economic phenomena and organizational actions have emerged, sustained and changed through time (Yazdifar, 2003).

2.1.3.2 New Institutional Sociology (NIS): An overview

According to Yazdifar (2003) NIS has been employed recently by many researchers in an effort to explain and conceptualise the actions and practices of organisations, challenging the prevalent perceptions which support the organizational autonomy and the rationality of actors embedded in organizations. NIS, contrary to previous organisational studies concerns fruitfully both the environment and organizations by conceptualizing them and explaining how organisations, considered as actors, respond to pressures exerted by their environment or other networks in which they are involved. Yazdifar (2003) discussed that according to NIS organisations are involved in wider organisational networks and cultural systems that constitute their institutional environment. This institutional environment constitute of beliefs, norms, rules and practices which influence organizations traditional beliefs and norms as well as existing rules and practices while organizational conformance to these provides organizations with legitimacy and societal support. Actually, NIS supports that, more than internal

aims, based on a rationality of achieving costing related and technical goals, it is organizations' external institutional environment that forms organizations' structures and processes such as procedures, rules and routines, defining thus individual and organizational activities appropriate for organizational success. From the perspective of NIS, organisational success is considered as the extent to which the organization embodies societal ideals concerning norms of rational behaviour (Yazdifar, 2003).

Further, conformance to norms and practices that are accepted by society are critical for the survival of any organisation. The achievement of the suggested conformity can lead to the achievement of societal legitimacy affecting thus the organisational structure and defining its core activity domain. That is, the legitimacy is considered as the key determinant of the growth and survival of the organizations (Meyer et al., 1983). Indeed, many researchers have applied NIS in their attempt to explain the portrayed degree of similarity among organisations that operate in environments that are highly institutionalised. It is claimed that organisations follow the formal structures and procedures that are persistent and valued in their operational socio-cultural environment in order to achieve legitimacy and to secure the essential for their survival resources (McKinley & Mone, 2003; Ribeiro & Scapens, 2006). It is also said that organizations conforming societal norms and rules reach legitimacy and enhance their survival independently of the value of these norms and rules in achieving effectiveness. This view implies that organizations' survival is not dependent exclusively on the organizational effectiveness but it is also reinforced by legitimacy in their external environment (Yazdifar, 2003). With the tendency to adopt the most common and easily available procedures and structures available in their socio-cultural environment,

organizations operating in similar environments, usually experience comparable demands regarding what constitutes acceptable behaviour. As a result, they will have very similar structures and processes that will be revealed via an isomorphic process (DiMaggio & Powell, 1991b). Isomorphism is “a constraining process that forces one unit in a population to resemble other units that face the same set of environmental conditions” (DiMaggio & Powell 1983, p. 149). Three mechanisms have been identified through which isomorphism can be achieved and through which organizations adopt appropriate legitimate systems and procedures such as coercive, normative and mimetic mechanisms (DiMaggio & Powell, 1991). According to Scott (2001b) these mechanisms reflect the three institutional pillars known as regulative, normative and cultural-cognitive respectively that are considered as analytical elements making up or supporting institutions. Each institutional pillar theoretically is considered as distinctive and uses distinct mechanisms and processes. However, in real conditions, it is possible that the three pillars are inter-communicated (Scott, 2001b). The regulative institutional pillar is related to the rules and laws of the institutional environment such as government laws or decrees monitoring and stating the organizational activities and appropriate behaviours by exerting coercive pressure (Kostova & Roth, 2002; Palmer & Biggart, 2002; Ruef & Scott, 1998; Scott, 2001). According to Scott (2001b, p. 52), the regulative pillar concerns “the capacity to establish rules, inspect others’ conformity to them, and, as necessary, manipulate sanctions- rewards or punishments- in an attempt to influence future behaviour”. In other words, a coercive mechanism can be activated in order institutions to be conformed. That is the coercive isomorphism, which is the result of the legislation’s influence and the consequent need of organizations to be legitimated. In general,

coercive isomorphism stems from the external environment pressures and societal cultural expectations. According to DiMaggio and Powell (1991, p. 66) coercive isomorphism responds to “both formal and informal pressures exerted on organisations by other organisations upon which they are dependent and by cultural expectations in the society within which organisations function”.

The next pillar is the normative institutional pillar related to values, beliefs, norms and assumptions of the institutional environment and is related to rules, standards and procedures regarding operations, occupations and education. According to Scott (2001) and Ruef and Scott (1998) the normative pillar constitute of values regarding the proper ways of doing things, and norms regarding the appropriate ways that needed to be followed. It is considered that normative institutions can influence individual and organizational behaviour because of the seeking conformity, the social necessity and obligation's enforcement and the common understanding of what it appropriate (Palmer & Biggart, 2002). Related to the normative institutional pillar, the normative isomorphism mechanism is associated with professionalization (DiMaggio & Powell, 1991). Normative isomorphism is claimed that “arises when professionals operating in organisations are subject to pressures to conform to a set of norms and rules developed by occupational/professional groups” (Abernethy & Chua, 1996, p. 574). In other words, the source of isomorphic organisational change is normative and is mainly enforced by professionalization (DiMaggio & Powell, 1991). According to Burns (2000) organizations move through the normative isomorphism mechanism when they believe that is needed to adopt structures, systems and processes that are considered as appropriate by occupational and professional groups related to them. Thus, multiple

professionalization processes are involved in the normative isomorphism mechanism, aiming to be embedded in the existing institutions by key actors, independently whether they are supported or not by the government.

The third pillar is the cognitive institutional pillar. It refers to social knowledge that is shared widely and cognitive categories such as stereotypes that represent the models of “individual behaviour based on subjectively constructed rules and meanings that dictate appropriate thought, feeling and action” (Wicks, 2001, p. 57). Cognitive institutions are reproduced through mimetic processes and they are followed by people and organizations unconsciously. Routines embedded in institutions are also followed as being “taken for granted” and “the way we do these things” (Scott, 2001b, p. 57). Institutional compliance takes place through the “taking things for granted” approach which can also be subject of mimicry by others and thus spread widely. This is the third mechanism known as mimetic isomorphism. This occurs when organisations are faced with uncertainty and “model themselves on other organisations” (DiMaggio & Powell, 1983, p. 151). There is the tendency organisations to copy and adopt practices of other similar organisations that are considered to be more legitimate and/or successful. They may even imitate organisations that operate outside their field that are similar to themselves in complexity. Scapens (1994) argued that when organisations adopt a mimetic behaviour, they tend to adopt an element of conformity and as a consequence they adopt practices that are contemporary in order to legitimise their structures, systems and processes by appearing to be in control. Some times governments enforce mimetic processes in an effort to reduce the levels of uncertainty. Through this type of pressure, organisations are encouraged towards imitating the role model actors.

Summarizing, an institutional perspective via the integration of NIS and OIE strands can provide a solid foundation for understanding and explaining organizational action at both macro and micro levels such as MA change and the implementation of accrual accounting system.

2.2 Management Accounting (MA) change

Change in accounting and especially MA change research has drawn the interest of various researchers for many decades (Napier, 2006). The debate on MA change emerged during the decade of the 1980's. Since Hopwood (1987, p. 207) stated that little was known about "the preconditions for such change, the change process or its organizational consequences" accounting change has become an increasingly popular debate and research subject in the literature on MA. According to Burns and Scapens (2000, p. 3) "Management accounting change has become a topic of much debate in recent years. Whether management accounting has not changed, has changed, or should change, have all been discussed". This is not surprising, as change has been considered to be directly related to the organizational culture of the "New Economy". The main characteristics of this culture were innovation, fast track operations, informal practices and private sector like approach to risk investment. Therefore, firms that have experienced significant changes in their organisational designs, environments and information technologies have clearly understood that, in this term, there was a need for MA to change (Bjoornenak & Olson, 1999; Burns & Vaivio, 2001). These changes ranged from minor changes in the existing MA systems which have continued to be used (Burns & Yazdifar, 2001) to complete replacements or significant changes in management accounting systems and practices (Laitinen, 2001; Sulaiman & Mitchell,

2005). Consequently, the examination of MA change in real life has employed an increased number of empirical research studies. Indeed, different types of change had been subject of research from the perspective of MA. Sulaiman and Mitchell (2005) used a novel typology classifying thus MA change consistent with the different types of MA (Table, 2.1). Various studies have also concerned changes in MA practices and the role of accounting systems or the diffusion of new management techniques in MA within organizations (Ax & Bjornenak, 2005; Fujimura, 2007; Jones & Dugdale, 2002; Lapsley & Wright, 2004). Practically, the implementation rate and the degree of success concerning these new systems and accounting techniques have both been variable (Kasurinen, 2002). All these empirical research studies have taken place across a variety of business and national setting and they have adopted a variety of research approaches and methods. A noticeable number of studies have investigated the reasons of MA changes in real life (Burns & Scapens, 2000; Granlund, 2001; Granlund & Lukka, 1998; Guerreiro et al., 2006; Scapens, 1994; Soin et al., 2002; Spraakman, 2006). A variety of conceptual frameworks has been proposed by several studies, many of which do not relate to the area of accounting, in order to provide an explanation of how the changes in practices and processes have taken place towards addressing a number of issues, including the management of the actual change process and the resistance to accounting change (Argyris & Kaplan, 1994; Briers & Chua, 2001; Cooper, 1990; Covalleski et al., 1996; Guerreiro et al., 2006; Innes & Mitchell, 1990; Pettigrew et al., 1992; Quattrone & Hopper, 2001; Scappens, 2006; Scapens & Roberts, 1993).

<p style="text-align: center;"><i>Addition</i></p> <p>Introduction of new techniques as extensions of the management accounting system (e.g. the first-time introduction of a non-financial performance measurement package, or of a quality costing system).</p> <p>e.g. Simonds (1981), Clark (1985), Innes and Mitchell (1990b, 1995), Shields and Young (1991), Bright et al. (1992), Kaplan and Norton (1992), Drury et al. (1993), Friedman and Lyne (1995), Yoshikawa et al. (1995), Dutton and Ferguson (1996), McLaren (1999).</p>
<p style="text-align: center;"><i>Replacement</i></p> <p>Introduction of new techniques as replacements for an existing part of the management accounting system (e.g. the replacement of traditional costing with ABC, or of a fixed budgeting system with flexible budgeting).</p> <p>e.g. Innes and Mitchell (1990b), Innes and Mitchell (1995), Darlington et al. (1992), Bright et al. (1992), Kaplan and Norton (1992), Drury et al. (1993), Shank (1996), Gosselin (1997), Jones and Dugdale (1998), Burns et al. (1999), May and Bryan (1999), Anderson and Young (2001).</p>
<p style="text-align: center;"><i>Output modification</i></p> <p>Modification of the information output of the management accounting system (e.g. the preparation of weekly as opposed to monthly variance reports or the re-presentation of numerical information in graphical form).</p> <p>e.g. Kaplan (1986), Innes and Mitchell (1990b, 1995), Gosselin (1997), Anderson and Young (2001), Granlund (2001).</p>
<p style="text-align: center;"><i>Operational modification</i></p> <p>Modification of the technical operation of the management accounting system (e.g. the use of a pre-determined as opposed to an actual overhead rate in an existing costing system or the use of regression analysis as opposed to an inspection basis for separating fixed and variable costs).</p> <p>e.g. Innes and Mitchell (1990b), Kaplan and Norton (1992), Amat et al. (1994), Burns et al. (1999), Vaivio (1999).</p>
<p style="text-align: center;"><i>Reduction</i></p> <p>The removal of a management accounting technique with no replacement (e.g. the abandonment of budgeting or the cessation of break-even analysis).</p> <p>e.g. Wallander (1999).</p>

Table 2.1: A typology of technical level change in management accounting (adapted from Sulaiman & Mitchell, 2005, p. 426)

During these studies the complexity of the process of MA change, has been confirmed (Burns, 2000; Tomkins, 2001). However, the limitation of relevant research concerning

the processes and practices of MA systems have been maintained, in terms of a clear understanding of their success or failure through the historical context of MA (Burns & Scapens, 2000).

2.2.1 The nature of MA change

The nature of MA change has been broadly argued and there is a significant number of research studies on this key issue. The research findings are very often contradictory (Burns et al., 1999, 2003; Busco, 2006; Wanderley et al., 2011) while researches usually avoid to define change, with the nature of change to be considered as taken for granted (Burns & Vaivio, 2001; Quattrone & Hopper, 2001). Quattrone and Hopper (2001, p. 404) stated that:

“what the concept of change means, whether it can be conceptualized independently from its process and how these factors relate to the practice of accounting is taken for granted and is poorly understood”.

MA change can be viewed as the creation and/or introduction of new MA techniques or it may also be understood as a change management process. According to the second view, MA change implies the change in management of using the MA information of the existing traditional systems and/or new accounting techniques in practice (Baker & Bettner, 1997; Hopper et al., 2001; Wanderley et al., 2011). More recently, Wickramasinghe and Alawattage (2007) suggested that MA change can act as a methodology that can facilitate the understanding of how environmental factors shape organisational internal processes. According to this view, the change process is a reflection on the emergence, evolvement and transformation of MA techniques facing

the changing environment's new demands. It is considered as a shift from mechanistic to post-mechanistic approaches of MA (Figure 2.1).

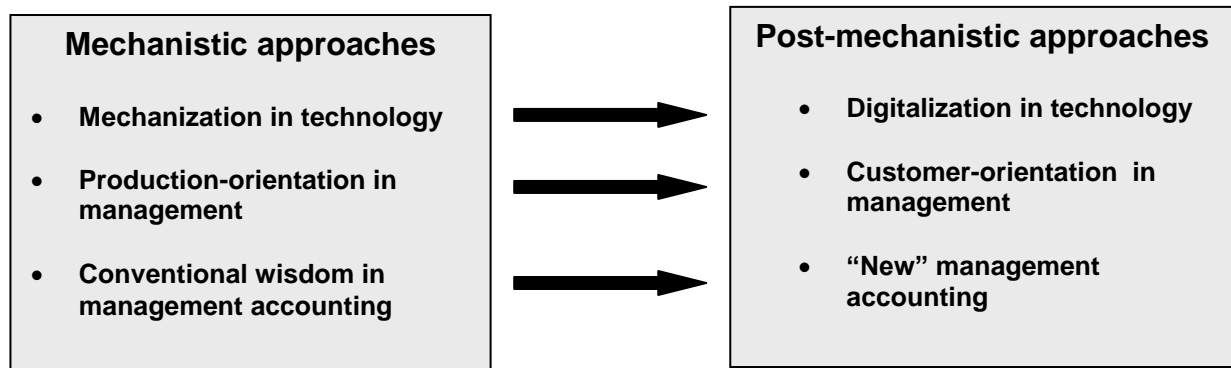


Figure 2.1: Management accounting change (adapted from Wickramasinghe & Alawattage, 2007, p. 14).

Indeed, the emerging technical innovations by the 1990s were apparent and descriptions of their practical implementation in accounting were widespread as Table 2.2 presents as follows:

Technical innovations	Researchers
Quality costing	Clark (1985).
Activity Based Costing	Granlund and Lukka (1998b), Innes and Mitchell (1990a), Kaplan and Anderson (2004), Sharman (2003).
Life cycle costing	Shields and Young (1991).
Throughput accounting	Darlington et al. (1992).
Activity Based Cost management	Friedman and Lyne (1995).
Target costing	Dutton and Ferguson (1996).
Functional cost analysis	Yoshikawa et al. (1995).
Strategic management accounting	Coad (1996), Collier and Gregory (1995), Dixon (1998), Dixon and Smith (1993), Guilding et al. (2000), Lord (2007).
Shareholder value techniques	May and Bryan (1999), McLaren (1999).
Balanced scorecard	Bach et al. (2001), García-Valderrama et al. (2009), Huang (2009), Johnson (1998), Kaplan and Atkinson (1998), Kaplan and Norton (1992, 1996), Kasurinen (2002).

Table 2.2: Research in technical innovations applied in accounting (Author's own).

Research regarding the existence and the nature of MA change through the employment of new accounting innovations in specific case studies described the important variation of accounting change in practice. For example, Innes and Mitchell (1990b) performed a research with multiple case studies on companies in the high-tech sector and reported useful findings on MA change in terms of techniques, technical aspect, application, replacement, modification and extension. Change was also researched through the study of using information in packages of performance measurement (Amat et al., 1994; Vaivio, 1999). In an alternative case accounting change has investigated with respect to the conversion of the cost systems' operation (Granlund, 2001; Kaplan, 1986). Change as a replacement by new techniques was examined in relation to existing management decision systems of support (Jones & Dugdale, 1998; Shank, 1996). It is also shown the MA change can be examined in case of the discontinuation of a technique such as the cash budgeting (Wallander, 1999). In a study performed in two companies of the automobile industry, the variation of the technical nature of the implementation of ABC was examined. In this case a tentative, partial and temporary change portrayed by the replacement of a comprehensive costing system to another more modificatory type (Anderson & Young, 2001). Further, findings of research studies have indicated that change and even of the same type, can be viewed differently by different organisations as might be perceived in different levels of importance (Friedman & Lyne, 1995; Innes & Norris, 1997). Also, change can be distinguished by the level of success as it can vary from varying forms and levels of failure to varying forms and levels of success (Cobb et al., 1992; Friedman & Lyne, 1999; Malmi, 1997). Finally, recent studies have tried to explore MA change beyond the limits of its

adoption as a technique but also to examine the volume and its prediction per se (Libby & Waterhouse, 1996; Williams & Seaman, 2001).

2.2.1.1 Preconditions of accounting change

Accounting research has attempted to shed light on the core of the determinants that condition and shape accounting change. There are historical studies that provided narrations of various influences of social and historical nature which may have been the cause or have laid the ground for accounting change. These have included distant and global social discourses such as those that relate to efficiency and/or growth (Mat, 2010). Also, a number of accounting studies have conducted in relation to the significant experienced changes in the new operating business environment related to the new technology advantages and new management strategies adopted in terms of MA (Burns & Vaivio, 2001; Choe, 2004; Hussain & Hoque, 2002; Innes & Mitchell, 1995; Kaplan & Norton, 1996; Scapens, 1999). It is considered, that all these changes have affected organisations, in terms of adopting the most appropriate and effective MA technique as well as in considering the design, redesign, maintenance and improvement of their performance (Baines & Langfield-Smith, 2003; Choe, 2004; Waldron, 2005). Factors of accounting change have been analyzed aiming in a better understanding of the combination and interaction of different variables in providing real circumstances that result or not in accounting change. A variety of aspects concerning organisational design, structure and corporate strategy have been examined via such studies (Baines & Langfield-Smith, 2003), organisational structure (Anderson, 1995; Gosselin, 1997) and corporate strategy (Baines & Langfield-Smith, 2003; Gosselin, 1997; Shields, 1995). It is also discussed (Tuan Mat, 2010) that specific organizational

elements have been defined as accounting change predictors, such as: facilitators, catalysts and motivators of change, qualities of accounting technologies, organizational readiness and capability for change, people and task characteristics, top management support, training and resource adequacy and linkage to performance evaluation and compensation (Anderson, 1995; Baines & Langfield-Smith, 2003; Innes & Mitchell, 1990; Libby & Waterhouse, 1996; Laitinen, 2001; Shields, 1995).

Innes and Mitchell (1990), in their effort to provide a description of the organisational forces that press for change, developed a threefold classification including three factors that affect MA change: motivators, catalyst and facilitators. According to this classification, change in MA and other related disciplines is promoted and facilitated by the interaction of these factors. Factors that act as motivators influence the observed changes in a manner that is general. For example, they may be related to market competition, structure of the organisation, use of technology, cost structure and the life cycle of the products in terms of length of time. Facilitators are factors such as resources of various kinds, for example information technologies and accounting staff that affect the accounting change success. The catalyst factors, as their name implies, are directly associated with change and its occurrence, and is also closely related to its timing. Innes and Mitchell (1990) argued that the interaction of the three different types of factors shown above can result in the occurrence of accounting change. Further, they claimed that the motivators and the catalysts act in a positive manner towards the generation of change. However, change can come into effect only when both suitable and facilitating conditions exist. According to Innes and Mitchell (1990), the factors for accounting change were mainly focused on driving change. They lacked an adequate

explanation on how the process of the accounting change can be achieved within the organisational boundaries.

Furthermore, four different categories of factors were provided by Laitinen (2006) in an attempt to explain MA change. These categories of factors are organizational, financial, motivational factors and management tools. In the process of explaining MA change, environmental changes and technological developments such as structure and strategy, can be used as motivational factors. Moores and Yuen (2001) have claimed that the structure and the strategy of an organization can be considered as internal contextual factors that may be connected to MA change. Factors of financial nature are used as outcomes of both organisational and MA change. Economic pressure in the form of adverse financial results may constitute a form of pressure for an organisation to attempt to increase its performance via a change in its MA systems (Grandlund, 2001). It is supported that MA change can rely on and be accompanied by accounting information in order to for it to result in the improvement of performance (Baines & Langfield-Smith, 2003). Thus, financial performance may be considered as a factor of outcome for MA change. Finally, institutional influences usually have an effect on accounting change related to the importance of new systems and the role of new accounting practices. This effect can take the form of an attempt to render organizational actions as legitimate and also of conformance to institutionalized rules (Amat et al., 1994; Abernethy & Chua, 1996; Covaleski et al., 1993).

2.2.1.2 The process of accounting change

There exists a vast array of literature that explores the accounting change processes. Various studies attempted to examine the diffusion of accounting technologies related to change process or resistance to change (Tuan Mat, 2010). Accordingly, Tuan Mat (2010) refers to various relevant studies that concern diffusion such as the drivers of ABC diffusion that were examined in a number of Finnish firms and has been shown that they alter during the lifecycle of the diffusion (Malmi, 1999). Diffusion also related to transfer pricing has been explored at an Australian governmental trading organisation. It was shown the important role of the “secondary stage adoption” of organizational norms, values and previous experience in understanding the trajectory of accounting (Perera et al., 2003). Resistance in the process of change has also been a subject of research (Tuan Mat, 2010) and it was found that resistance related to change seems to originate from diverse origins and with deep roots in established organisational contingencies and historical legacies (Malmi, 1997; Scapens & Roberts, 1993). Also, the creation of inertial forces may come as a result of these contingencies that in turn can counter change agendas (Granlund, 2001). There are also studies that have investigated the enactment of resistance, as well as, strategies relative to the resistance to change (Tuan Mat, 2010) such as studies that surveyed accounting change and resistance in the British medical sector and it was found that the existence of “absorber groups” was a key factor that enhanced the resistance to change by medical professionals (Broadbent & Laughlin, 1998; Laughlin et al., 1994). Cobb et al. (1995) conducted a longitudinal case study regarding MA change related to factors of preventing, hindering or delaying the progress of change such as the priorities of change, the attitudes of staff with regard to change and the turnover rate of accounting

staff. Also, leadership, influence of people and momentum for change have been suggested as factors that affect the change process. In summary, leaders and momentum as well as the three factors identified by Innes and Mitchell (1990) namely the motivators, the catalysts and the facilitators, have been identified as change's advancing forces. Moreover, these advancing forces and any related barriers have been defined as change's influential forces. In their research, Cobb et al. (1995) underlined the determinant role of people and their attitudes to the change process as well as the need for information. Kasurinen (2000) identified also barriers that inhibit change process. Similarly to previous studies, he highlighted the key role of people in overcoming the change barriers. Furthermore, he suggested that barriers and forces influencing the change process should be explored and recognized in the early phases of the change process. The accounting change process in an Australian State Government was studied by Christensen (2002). He focused on the reform process history and went on to identify and emphasize three different actor groups. These were the promoters of change, the producers as well as the users of information. People and organisations that have particular interest and seek out change can actually promote change which can then be stimulated by those who produce information. In terms of the study mentioned, the producers were public servants and managers from governmental agencies. Further, the users of information can stimulate change. These users, in terms of a government, can be politicians who are responsible for portfolios. However, the process of the implementation of change can be fragmented by barriers that may result in overcoming the initial desire for change. Examples can be the public sector entities and the existing accounting systems which may pose certain limitations regarding the availability of options for the implementation of change.

2.2.2 Accrual accounting: a component of MA change

The public sector reform and the associated organisational change have been considered as influencing the existing accounting systems in public sector entities. This consideration was based on the view that accounting is socially constructed and as such it is subject institutional forces exerted from the external and/or internal organizational environment (Miller, 1991, 1998a, 1998b; Miller & Napier, 1993; Power, 1997). These institutional forces exercise pressure for the adoption of financial and MA practices that conform to the ideals and objectives of the NPM (Hood, 1991; Pollitt, 1990). These forms of management techniques included strategic planning and total quality management, as means to be achieved transparency, efficiency, effectiveness and accountability. The notion of value-for-money has been emerged and has been supported by accounting techniques of performance measurement, budgeting and costing, considered as key to achieving greater efficiency and effectiveness (Funnell & Cooper, 1998; Jackson & Lapsley, 2003). The core emphasis of public sector reform on management of services rather than on administration of services required the shift from the old role of accounting to cost management and this means the shift to the application of accrual accounting systems. The principles of NPM have surpassed the traditional methods of both management and accounting and contemporary developments in public sector accounting, in terms of NPM reforms, have been reported at an international level (English et al., 2000; Parker & Guthrie, 1993). As a result, accrual accounting has been viewed as a core component of this new concept. It is stated that accrual accounting can not be considered as

"... a means of shifting the emphasis of the budgetary process away from cash inputs, towards outputs and outcomes, in the hope that this will result in greater management efficiencies, and hence, better outcomes for Governments and the communities they serve" (Carlin & Guthrie, 2000 p.3).

The accrual basis accounting system has been considered to provide many advantages to both internal and external users (Lye et al., 2005). Indeed, it is broadly accepted that accrual based financial accounts focus greatly on output rather than only on inputs and it is considered as an advantage for any management system with clearly stated objectives, information, incentives and managerial freedom. Accrual accounting has been regarded as a financial information system providing management with financial information for purposes of performance and accountability. Public sector accounting studies have admitted accrual accounting's primacy in sustaining principles of accountability, efficiency and effectiveness (Gillibrand & Hilton, 1998; Guthrie, 1998; Hodges & Mellett, 2003; Lapsley, 1999; Lapsley & Oldfield, 2001; van der Hoek, 2005). It is suggested that it provides accurate information regarding organizations' financial condition leading to enhanced accountability, performance and better quality decision making in relation to the costs of services provided and the allocation of available resources (Chan, 2003; Christiaens & de Wielemaker, 2003; Gillibrand & Hilton, 1998; Guthrie, 1998; Hodges & Mellett, 2003; Hoque & Moll, 2001; Likierman, 2000). The International Federation of Accountants Public Sector Committee has provided that the information available in financial statements based on accrual accounts facilitates efficient planning, accountability and decision-making improving thus quality of financial management (Fee Public Sector Committee, 2002, 2007). It is argued that public sector accrual accounting implementation requires that all assets,

liabilities, revenues, and expenses be recognised. This may result in the generation of information which can also be comprehensive and which can also become available about the financial performance and the financial position of public sector entities. As a consequence, it may lead to the achievement of increased efficiency within the public sector, especially with regard to asset usage (Rowles, 2002). Generally, accrual accounting has been considered as leading to better business planning, budgeting, management of expenses and decision-making processes. In particular, accrual accounting advantages have been structured on a two level tier (Deaconu, 2011). The first level refers to the advantages that derive from the increased capacity to provide correct and complete information on resources, debt and revenues. The second level refers to the advantages that derive from obtaining full cost information. In summary, the outlined advantages from both levels can be significant, as they improve stakeholder communication with the organisation and can also facilitate the improvement of organizational planning, control and accountability. In the literature, the importance of costing information is undoubtedly supported in performance reporting and also in the processes of decision-making, planning and control (Hart & Wilson, 2004; Wilson & Keers, 2003).

2.2.2.1 Costing information

Accrual accounting is considered as providing the opportunity of costing identification to public organizations and thus can lead to cost minimization (Guthrie, 1999). Accrual basis accounting by providing valuable information about total operational costs and revenues during a specific time period and by making valuable resource allocation improves measurement of organisational performance and efficiency (Carlin, 2005).

Indeed, it has brought a change, in terms of the way assets are accounted for. Under cash basis accounting, it was only when money was paid out that assets were recorded and accounted for. Further, assets were put in use and as a result their value deteriorated. No further accounting treatment was involved regarding its value. The only type of information provided was if the asset was in use, if it was sold and information on the time remaining until the end of its useful life. According to the accrual basis accounting system, the cost of the asset is distributed over its life of usage and technically, there is more than one method for recording this. In this line, public entities adopted the asset registration that provided very useful and detailed information on the assets and as a result, it increased the accountability of the managers responsible for those assets. The estimation of depreciation, the provision of costing data and asset capitalisation has been the main innovations of the accrual basis system as opposed to the cash basis system, without of course undermining the provision of additional information.

2.2.2.2 Budgeting and financial reporting

Guthrie (1995) has argued that the movement towards NPM together with the required shift from the cash basis to the accrual basis accounting system brought a lot of changes to accounting practices such as budgeting and financial reporting. As a result, the introduction of the accrual concepts has become an embedded element in the process of preparing budgets and other reports of financial nature. The importance of budgeting and financial reporting in public sector has been stressed as "Many believe the budget is the most significant financial document produced by a governmental entity" (GASB 1987, page 8). On this basis, public sector organisations have implemented accrual

budgeting, as well as, accrual reporting related to budgets preparation and financial reports with respect to an accrual basis instead of the cash basis accounting system employed so far.

Also, the decision making process has benefited more from the introduction of accrual accounting, as it is regarded as providing more useful information. Cash accounting focuses on cash receipts, cash payments and cash surpluses or deficits by recognizing transactions on the date the cash is received or disbursed. It merely reports on the inflows and outflows of cash and on the corresponding changes in the cash balances being withheld. With the cash basis system, cash transactions together with the respective balances are only being recorded, regardless of when services and goods were produced and/or rendered. On the other hand, the focus of the accrual basis system is on revenues, expenses, profits or losses by recognizing transactions on the exact date that the income was earned or the expense was incurred. Accrual accounting according to the FEE Public Sector Committee (2007, p. 8), is “a method of recording financial transactions where the full characteristics of those transactions are recorded in the period to which they relate”. In addition, it recognizes revenues and deducts expenses in the fiscal period in which they are actually accrued (earned or incurred), regardless of when cash is received or paid out. It is necessary for capital elements to be adjusted at the end of each reporting period. Examples of major capital elements are the accounts receivable, inventories, work-in-progress and accounts payable. Therefore, the accrual basis accounting system provides information about the financial performance and the position of public resources that cash accounting cannot (Rowles, 2004). Accrual accounting provides information on revenues and expenses, including the

impact of transactions where cash has not yet been received or paid (Public Sector Committee, 2002). Thus, financial statements based on the accrual information contain year end information and allow for greater comparability of the results of management performance. Therefore, it goes beyond merely recording the movements of cash flows as it records and matches revenues earned with resources consumed during a particular period of time. Consequently, the organisational comprehensive statements of position and performance at year and during the year respectively can be produced.

2.2.2.3 Questioning the accrual accounting moving

Theoretically the benefits of accrual accounting for MA have been considered to be related with budgeting and efficient use of financial resources, decision on outsourcing, assessment and accountability of the provided services (Ball, 2004; Likierman, 2000). However, the compatibility of the aims, objectives and sources of finance between private sector and public sector organisations has been questioned implying the doubts over the effectiveness of accrual accounting on financial performance (Barton, 2009; Guthrie, 1998; Guthrie & Johnson, 1994; Guthrie et al., 1999; Likierman, 1992). Indeed, it is supported that the implementation of accrual in the public sector is not necessary and/or not useful as it is not possible for public sector organisations to achieve fully the expected benefits following the implementation of accrual accounting (Steccolini, 2002; Cohen et al., 2009). The differences between private and public sector organisations are the major source of disadvantages that are evidenced when public sector organisations shift from the cash basis to the accrual basis system of accounting. Buhr (2010) referred to the differences between public organizations and private sector business including that:

1. The aim of public sector entities is to provide services and to relocate and redistribute resources, with accountability to be primarily related to the quality and cost of the provided services. Accountability in public sector is of greater importance than in private sector.
2. Performance measurement is important, not only cost of services information.
3. Tangible capital assets are related to service capability rather than future cash inflows, alike those held by private sector.
4. Capital spending does not mainly focus on financial return such as in private sector but rather is related to broader reasons and objectives such as economic development.
5. The main source of revenue for public organizations is taxation and equally the ability to spend.
6. Public organizations operate in a non-competitive environment.

Accordingly, Likierman (1992, p. 23) have stated that

“Those who believe that private sector accounts are superior need to bear two factors in mind. First, that there are no immutable accounting or other financial reporting rules which apply irrespective of the nature and purposes of the organisation whose activities and results are being displayed or the objectives of presentation. Second, that cash accounts, despite their crudeness, have a degree of transparency that accrual accounts cannot give and that many private sector financial reports do not seek to offer”.

It is argued that performance measurement is not an equally shared notion for both private and public sector organisations, as the former ones seek out profit and the latter ones that pursue social objectives (Carnegie & West, 2003). Performance measurement is a concept that measures profit and this poses a limitation by default for its

meaningful application in the public sector. Consequently, decision making by management in the public sector aims in the achievement of certain social objectives while in the private sector decision making by management is based on the capability to incur profit (Mulgan, 2002). It is also assumed that “the objective of financial statements is to provide information that is useful to those for whom they are prepared” (Accounting Standards Board, 2003, p. 24). However, given that financial statements in public sector provide information useful for political rather than economic decision making process, the financial statement requirements would be different of those in private sector. There are, also, some suspicions related to the difficulty and costs of the implementation of the accrual accounting in public sector and the possibility to recognize and value correctly the assets of public entities (Christiaens & Van Peteghem, 2007; Jones, 1992; Lapsley, 1986; Pallot, 1992). Indeed, the definition of assets in public sector has been considered as “so complex, so abstract, so open ended, so all-inclusive and so vague that we cannot use it to solve problems” (Scheutze 2001, p. 12) implying their problematic application in public sector organizations. Wynne (2003) referred to some examples that explain this view, such as the absence of historical cost in cases of public assets provided by gift or natural endowment, the difficulty of the estimation of the economic benefit from the use of asset or the restrictions posed by the government related to their disposal. Despite the criticism on the effectiveness of its use for the public sector, Lapsley et al. (2009) have characterized as ‘self-evident’ the adoption of the accrual basis accounting system. Many studies also support this view while there are many countries that have and are currently implementing the adoption of accrual basis accounting principles in public sector (Connolly & Hyndman, 2006; Paulsson, 2006).

However, it is important to mention that the transition process from the cash basis system of accounting to the accrual basis system of accounting has a twofold implication; the first one being the accounting system change and the second one being the change of conception (OECD, 2002). Thus, understanding of change and change process is a crucial point for the scope of the current study. Furthermore, the notion, the nature of change and the why and how change is affected by the dynamics of the change process need to be understood in order to explain the organisational response to change and the determinants for rendering the change process successful.

2.3 Understanding the process of change

Scott and Ruef (1998) have defined organisations as social structures that are created by individuals. It is also claimed that organizations are open systems and as such they respond to environmental changes. This means that organizations are influenced by their institutional environment and responsive to this. This view is supported by Meyer and Scott (1994, p. 210) who stated that “...we see local organisation structures as embedded in a wider organisational system, and much affected by its properties”. However, organisations experience different influences and respond in different ways regardless of the fact that they operate or not in the same or in a similar institutional environment (Scott, 2001b). Consequently, beyond the knowledge of the ability of organizations to respond to their operational environment is also important to understand how they might respond to this following or not change. It is claimed that, even though the successful management of change is a necessity for today’s organisations’ survival, change implementation faces many problems related to the unsuccessful establishment of a sense of urgency for change, to the limited authority of

leaders, to wrong timing or to the objectives structure (Beer et al., 1990; Kotter, 1996; Pfeffer, 1992). This is also supported by the work of Balogun and Hailey (2004) who reported an approximate 70 per cent failure rate of all change programmes initiated. As a possible explanation of this failure of change implementation, a crucial lack of a valid framework for management and change implementation has been suggested (Burnes, 2004). Thus, it is claimed that given the premise that change is unavoidable, it is rational and logical to seek for and learn more on what constitutes and creates successful change with respect to successfully managing change. Indeed, there is a wide range of management methods and techniques from which organisations can choose from when engaging in the process of change management (Kotter, 1996; London 2001; Waldron, 2005).

2.3.1 The notion of change

According to Quattrone and Hopper (2001, p. 404) “little is known about what change is”. However, it seems that today’s competitive and fast evolving business environment has caused the need of change to be higher than ever was (Balogun & Hope Hailey, 2004; Burnes, 2004; Carnall, 2003; Luecke, 2003; Moran & Brightman, 2001; Paton & McCalman, 2000; Senior, 2002). Change has been considered as being a “constant feature of organizational life” (Burnes, 2004, p. 309). It is supported that many organizations have recognized that change is an organizational good that enhances the productiveness and success of the organization (Weber & Weber, 2001). In simple terms, a change denotes a shift from a present state to a new and different state and usually concerns a particular situation or condition (Mecca, 2004). From this view change concerns the revision and replacement of an existing situation or condition

(Fuller, et al., 2006). Internal and/or external factors seem to trigger change and there is a consensus on that all kinds of organisations are being affected (Balogun & Hailey, 2004; Burnes, 2004; Carnall, 2003; Luecke, 2003). Change usually refers to organisational shifts regarding its external environment, as well as, intra organisational changes that are caused by its external environment's shifts and by which organizations respond to these.

Organizational change literature has described and defined change in several ways. Lewin (1947, 1951) defined change from an individual perspective. In particular, he examined the social responses to change, as well as, the psychological processes that are experienced by the participants in the change process. Furthermore, he supported that change itself is a dynamic that binds together the driving forces of change and the competing forces of resistance. He defined organizational change as being an event that is "frozen, unfrozen, and refrozen" (Lewin, 1951). According to the individual perspective change is depicted as a human behaviour adjustment of those involved in change to the new conditions (Garg & Singh, 2006, p. 46).

"On the other hand, individual change represents the change in attitude, vision and target of an individual in the organisation. Change management is then defined as the effective management of a business-change."

From an organizational perspective, change has usually been related to the operations and structures of organisations and it is defined as

“an empirical observation of difference in form, quality, or state over time in an organizational entity. The entity may be an individual’s job, a work group, an organizational strategy, a program, a product, or the overall organization” (Van de Ven & Poole, 1995, p. 512).

Also, it has been characterized as “the deliberate introduction of novel ways of thinking, acting and operating within an organisation as a way of surviving or accomplishing certain organisational goals” (Schalk et al., 1998, p. 157). From an organizational perspective, change is referred as an effective planned process which is facilitated through a sequence of activities, processes and leadership. This process assists organisations to improve and to realize economic benefits as well as competitive advantage (Cummings & Worley, 2001). More recently, Lines (2005, p. 10) also viewed change as a planned process and focused on the organizational outcomes describing the process of change as “a deliberately planned change in an organisation’s formal structure, systems, processes or product-market domain intended to improve the attainment of one or more organisational objectives”. Change has also characterized as strenuous effort. It consists of changes that are actual and physical in nature, to operations and varying emotional stimulation and might also prove to be painful for the participants in the workplace (Bernerth, 2004). According to Grover et al. (1995) change is, at best, “complex and not easily accomplished, involving the manipulation of interactive relationships among such organisational subcomponents as management, people, structure, technology and rewards”. The need for change is unpredictable and as such it tends to be reactive, discontinuous and ad hoc. Organisational crisis may also be a cause for a need for change (Burnes, 2004; De Wit & Meyer, 2005; Luecke, 2003; Nelson, 2003).

2.3.2 Why and how change happens?

Triggers of change “are the factors which may conspire to initiate change both internally and externally regardless of whether these are seen as needs, opportunities or threats” (Grundy, 1993). Organisational change literature suggests a number of forces that may lead to organisation change. For example, change can be the outcome of pressures that may derive from the external environment e.g., market and economy pressures, governments policies and regulations, technological advances, competitors, changing customer expectations, social and political changes or from the internal organization environment e.g., power and system dynamics, new organizational strategies, outdated products and/or services, market opportunities, changing structure and workforce diversity and expectations (Jones & Sharbrough, 2002; Kiefer, 2005; Lanning, 2001; Moll, 2003; Sharma, 2007). Sharma (2007) presented with a diagram the shift of trends that lead change forces as following (Figure 2.2):

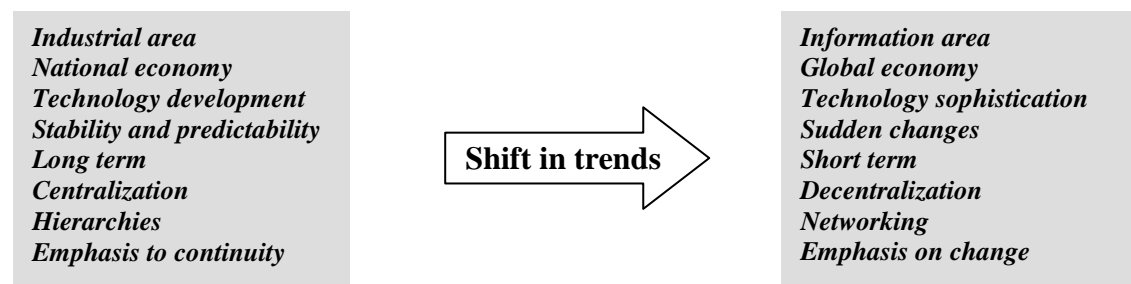


Figure 2.2: Shift of trends (adapted from Sharma, 2008, p. 4).

Lanning (2001) summarized that organizational change is driven from outdated organizational operation and performance that are no longer aligned with the demands of the internal and/or external competitive environment. From an institutional

perspective, Moll (2003) referred to the view that organisations do not always wait for legitimacy to be conferred but sometimes they can make a conscious choice to be perceived as legitimate. Baron and Baron (1993) described organisational change with some examples (Table 2.3). Change is characterized as planned and deliberate or unplanned and random, due to external or internal changes.

	Planned change	Unplanned change
Internal change	Changes in products or services Changes in administrative systems	Changing employee demographics Performance gaps
External change	Introduction of new technologies Advances in information processing and communication	Government regulations External competition

Table 2.3: Examples of organisational change (adapted from Greenberg & Baron, 1993, p. 624)

According to the planned approach, it is assumed that change is regular, stable and it is identified by a causal-effect relationship. Planned change is seen as a transition from a quasi-equilibrium state to a new state of equilibrium. Organizations need to go through various states in order to derive to a desired state (Eldrod II & Tippet, 2002; Sharma, 2007). Change that is planned is concerned the deliberate and concerted effort for new conditions and circumstances to be established. On the other hand, unplanned change is not consciously produced. It is produced rather through side effects, through some subsidiary event or secondary effect or even unexpected consequences of action without a predictable cause-effect relationship. According to this view change and effects can not be with certainty predicted and/or controlled evolving through the interaction of different factors (April, 1999; Ford & Ford, 1994; Sharma, 2007). Lewin (1946) initiated the planned approach to change and since then a large amount of

research has been conducted around the planned change approach as it was subscribed to by Lewin (Cummings & Worley, 2001).

However, there is the view that change in organisations is initially the result of pressure from the external environment rather than the outcome of an internal desire to change (Lanning, 2001). Thus, criticism has been exercised to the planned approach even though it is a long established and highly effective one (Todnem, 2005). Todnem (2005) suggested that criticism was mainly exercised by those who have advocated the emergent approach. Emergent approach suggested that the planned approach viewed organizations as moving across different states in a manner that is already planned under constant operating conditions. Further, they claimed that the planned approach towards change focused mainly on small scale change questioning thus its applicability in rapid and major change that may needed in an increasingly rapid changing business environment. This uncertainty of both the internal and external organizational environment suggests that the emergent approach is more appropriate than the planned approach to change. The emergent approach focused on the unpredictable nature of change and defined change as a learning process. It suggested that change should be driven from the bottom-up. In addition, it argued that the nature of change is unpredictable and viewed change as a learning process through which organizations respond to the uncertainty and competitiveness of the organizational environment. This means that organizations become systems of open learning and the change may emerge from the interpretation and the processing of environmental information (Todnem, 2005). Todnem (2005), also referred to Burnes' (1996) claim regarding the emergent approach. Indeed, Burnes supported that the emergent approach stressed on the

“extensive and in-depth understanding of strategy, structure, systems, people, style and culture, and how these can function either as sources of inertia that can block change, or alternatively, as levers to encourage an effective change process” (Burnes, 1996, p. 14).

Thus, it can be suggested that the emergent approach towards change focuses rather on the readiness for change and change facilitation than on the provision of planned specific steps (Todnem, 2005). Finally, Todnem (2005) highlighted that Burnes (1996, p. 14) claimed that “the emergent model is suitable for all organizations, all situations and at all times”. According to the same author (Burnes, 1996) the applicability and validity of the emergent approach to change depends on the view that organizations operate in unpredictable and dynamic organizational environments and they need to be adapted to this on a constant basis. However, emergent approach to change has been criticized for the lack of coherence and techniques diversity (Todnem, 2005).

Independently of the planned or emergent approach to change the strategies adopted and organizational responses related to both internal and external environmental pressures vary between organizations (Scott, 1998c). Oliver (1991, p. 151) argued that organisational responses to institutional pressures

“will vary from conforming to resistant, from passive to active, from preconscious to controlling, from impotent to influential, and from habitual to opportunistic, depending on the institutional pressures toward conformity that are exerted on organisations”.

Also, people’s key role is recognized as influencing the type of organizational response to changes as “in order to make a decision to change an organisation, individuals must

perceive a need and source for that change” (Fligstein, 1991, p. 315). London (2001, p. 133) also highlighted the core role of the involved people in the change process reporting that “the adoption of new work practices or behaviours is more likely to be accepted if the benefits of change can be demonstrated to the people affected by the change”. Thus, managing change is an important issue that is needed to pay attention as a key element of a successful change effort.

2.3.3 Managing change

In today’s competitive and constantly changing business environment, change management constitutes a very important discipline and a highly managerial challenge due to the increasingly importance of organizational change. The management of change in large corporate environments is a challenging task and objective since it has never been an easy process. Change management has been broadly considered as being referred to “the task of managing change”. The term management change refers either to making planned changes or to organizational response to unplanned changes that exert from the external organizational environment and “over which organizations exercises little or no control” such as a new legislation (UNPD, 2006, p. 5). According to Nickols (2000), change management can be categorized based on the three following definitions described below:

- As a task, with the management of change to be realised in a fashion that is well planned and managed.
- As an area of international professional practice, where consultants at a global level manage change professionally.

- As a body of knowledge that includes various models and techniques, as well as, tools and skills and is transformed into a practice.

It is suggested that the convergence of the two main schools of thought have given rise to the evolvement of the change management process. On the one hand, there is the engineer's approach which emphasizes on the improvement of organizational performance and on the other hand there is the psychology approach with emphasis on the management of the human resources involved in the process of change (Hiatt & Creasey, 2002). Further, change interventions can be categorized in "three main typologies" (UNPD, 2006, p. 5):

- *Top-down change management.* It assumes that change can be developed in a smooth manner if managers allow for proper planning of things. However, given that people's resistance is expected to constitute an obstacle, there is the imminent need for concerning culture change.
- *Transformational change management.* This process is enacted by the leaders who follow a transformational leadership style by participating in the change process and by constituting an example for others to follow and at the same time a challenge of thinking innovatively.
- *Strategic change management.* Contrary to the top-down model, it aims towards the introduction of new work behaviour. This new behaviour will assist the employees to witness the organisational benefits and embed change in their own ways of working.

It has been widely argued that the top-down change management category has a higher rate of failure compared to the remaining two categories. The importance of leadership

and involvement of people in the process of change is a key attribute of the approaches mentioned above. However, the particular situation of the organisation is the determinant of the effectiveness of each of the approaches shown above. Literature supports widely that it is of crucial importance for any organisation that change management needs to meet the unique needs of each particular organizational context (Christensen & Overdorf, 2000; Lawler et al., 2001).

2.3.3.1 Change process models and change dynamics

Kotter and Schlesinger (2008, p. 2) in the beginning of their paper highlighted the difficulty of a successful change management process by making reference to Machiavelli's statement: "It must be considered that there is nothing more difficult to carry out, nor more doubtful of success, nor more dangerous to handle, than to initiate a new order of things". Indeed, many change models have been promoted for the purpose of providing a better understanding of organizational change and handling change management process. According to Armstrong (2006, p. 347) Lewin's (1951) three-step model and Beckhard's (1969) model are the "best known change models". Lewin's (1951, 1958) model of planned change considered an organization to be in equilibrium due to the balance of the opposing forces, the driving forces and the restraining forces. The driving forces could guide the organization towards change (a new position) while the restraining forces could oppose to change effort and try to retain the prevailing (the old position). Lewin's model proposed a process that constitutes of three phases such as unfreezing the old, moving to new and refreezing the new behaviour. The first phase of unfreezing, preparing the climate for change, creates discomfort with the status quo and alters the present stable equilibrium which supports existing behaviours and attitudes.

The moving phase involves evaluation and analysis, the design and implementation of a new dispensation developing thus new responses. Institutionalisation of change is achieved in the refreezing phase through the reinforcement of the new equilibrium of the organisation at a different level. The model suggested that the old organisational behaviour needed to be abandoned when a new one is adopted successfully as an effect of the change process (Burnes, 2004). Lewin's (1951, 1958) three-step model of planned change is still considered to be a very accurate descriptor of the occurrence of change. It identified the different change stages and describes change as a series of transitions between them. According to the model, change will occur after the system unfreezes, and change will last when the system refreezes again. According to Burnes (2004) Lewin's model was implied group dynamics and suggested how individuals will usually go along with the group norm. Armstrong (2006) also noted that Lewin's model suggested a "Field Force Analysis" by analyzing and assessing the restraining or driving forces of change and taking actions to increase or decrease respectively the driving or restraining forces. However, Lewin's (1951, 1958) model of planned change has received criticism for being very simplistic and static as well as for not offering adequate practical information regarding the practical carrying out of change (Burnes, 2004; Eldrod II & Tippett, 2002; Kanter et al., 1992). According to Kanter et. al. (1992, p. 10)

"Lewin's model was a simple one, with organizational change involving three stages; unfreezing, changing and refreezing ... This quaintly linear and static conception-theorganization as an ice cube-is so wildly inappropriate that it is difficult to see why it has notonly survived but prospered".

Contradictory to this criticism, Burnes (2004, p. 319) supported that Lewin did not consider organizations “as rigid or fixed” and made reference to Lewin’s claim that ‘Change and constancy are relative concepts; group life is never without change, merely differences in the amount and type of change exist’ (Lewin, 1947a, p. 199). Many authors have expanded further Lewin’s work in an attempt to identify and describe the change process phases which enhance change efforts towards a successful change. For instance, Beckhard (1969) supported that change process should be evolved by:

1. setting goals and defining the future state or organizational conditions desired after the change
2. diagnosing the present condition in relation to these goals
3. defining the transition state activities and commitments required to meet the future state
4. developing strategies and action plans for managing this transition in the light of an analysis of the factors likely to affect (Armstrong, 2006, p. 348).

Later, a four-phase model of planned change was developed by Bullock and Batten (1985): exploration, planning, action and integration. It was based on the view that organizations state in different states at different times. Thus, change means organizations to undergo from a stage to another. The model described the change phases and the various stages that an organisation needs to undergo in order to successfully implement change (Figure 2.3). Judson (1991) considered predictable people reactions and resistance to change and suggested a change process model including five change phases: analysing and planning change, communicating change, gaining new behaviours acceptance, changing from the status quo to the new state, consolidating and institutionalizing the new state.

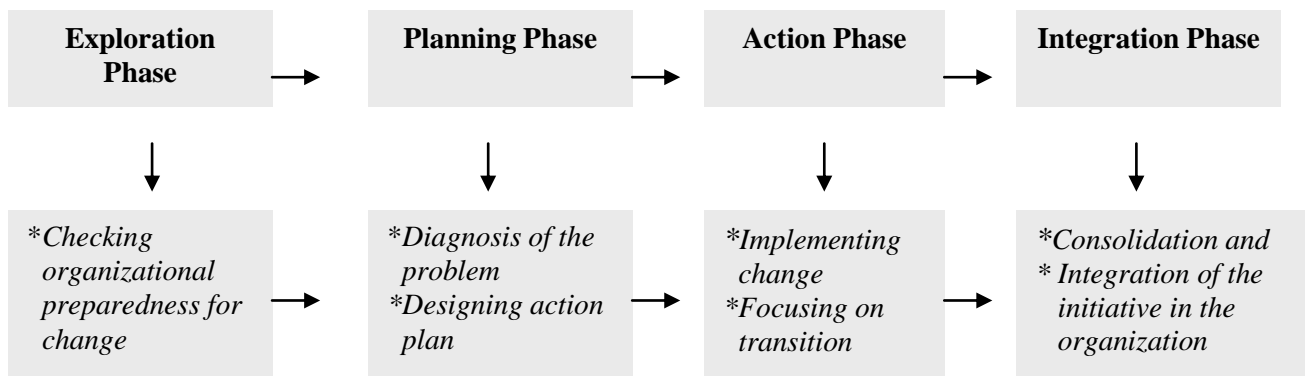


Figure 2.3: Bullock and Batten’s model of change (adapted from Sharma, 2008, p. 51).

Kanter et al. (1992) criticized Lewin’s model as simplistic and highlighted the continuance of the change process and suggested “ten commandments” for bringing about executing and lasting change:

1. Analyze the organization and its need for change
2. Create a shared vision and a common direction
3. Separate from the past
4. Create a sense of urgency
5. Support a strong leader role
6. Line up political sponsorship
7. Craft an implementation plan
8. Develop enabling structures
9. Communicate, involve people and be honest
10. Reinforce and institutional change (Kanter et al., 1992, p.383).

Robertson and Seneviratne’s (1995) three phases’ model referred to changes in organizational work settings, to behavioural changes and to organizational changes that finally result to organizational performance and people development.

The phase model provided by Kotter (1995, 1996) is also one of the most popular ones (Table 2.4). The author developed an eight stage process of change and suggested that changes are associated with a process that consists of particular phases towards a successful change implementation while he also highlighted the importance of all phases throughout the change process.

Kotter's eight step phase model	
1	Establishing a sense of urgency by examining market and competitive realities and by identifying and discussing potential crises or major opportunities.
2	Creating a powerful guiding coalition by assembling a group with enough power to lead the change effort and by encouraging members' group to work as a team.
3	Developing a vision and strategies for achieving this vision.
4	Communicating the change vision using every available means and teaching new behaviours by the example of the guiding coalition.
5	Empowering people to act on the vision by overcoming obstacles to change, changing systems and structures and by encouraging risk taking and innovative ideas and actions.
6	Planning for and creating short term wins by planning for and creating performance improvements and by rewarding people involved in them.
7	Consolidating improvements and producing more change by using increased credibility to change systems, structures and policies that do not fit the vision, by promoting people who implement the vision and by reinvigorating continuously the change process.
8	Institutionalizing new approaches in the culture by articulating the connections between the new behaviours and corporate success and by developing the means to ensure leadership development and succession.

Table 2.4: Kotter's eight step phase model (adapted from Kotter, 1995, p. 61).

More recently, Kotter adapted the initial eight step change model by suggesting that a successful change process should be unfolded by:

1. Creating a sense of urgency so that people start telling each other "Let's go, we need to change things!".
2. Pulling together a guiding team powerful enough to guide a big change.
3. Creating clear, simple, uplifting visions and sets of strategies.

4. Communicating the vision through simple, heartfelt messages sent through multiple channels so that people begin buy into the change.
5. Empowering people by removing obstacles to the vision.
6. Creating short term wins that provide momentum.
7. Maintaining momentum so that wave after wave of change is possible.
8. Making change stick by nurturing a new culture (Kotter & Cohen, 2002).

Furthermore, Kotter (2007) reviewed the results derived from the incorrect order or wrong way the eight steps are followed by watching more than a hundred of companies the last decade. The author (Kotter, 2007, p. 125) concluded that critical mistakes on any of the eight phases proposed may have “a devastating impact, slowing momentum and negating hard-won gains”. Galpin (1996) proposed a nine-step model highlighting the importance of understanding and changing organizational culture. The nine-steps in model include the establishment of the need of change, the development and dissemination of planned change vision, diagnosis of the current organizational condition and analysis, generation, detailing, pilot testing, preparation for rollout and rolling out recommendations, and finally the measurement, reinforcement and refinement of change. According to Kotter (1996) the change process phases often overlap implying that the entire change process is rather an evolving process than a clear progress of different phases in which the end of one stage is the start of the next. He also argued that his eight-stage model does not pose a limitation for having various other different stages concurrently being under way. Finally, he highlighted that either forgoing a single step during the change process or failing to develop a solid base for moving up in the process usually causes problems (Kotter, 1996).

From a different perspective, Greenwood and Hinings (1996) developed a model of change management which was based on a new institutional approach. Greenwood and Hinings' model viewing that internal and external forces can activate change within organizations concentrates on organizational actors' responses to contextual pressures for change and the intra-organizational dynamics mobilised in order to succeed change. The intra-organizational dynamics are determined as precipitating dynamics and enabling dynamics. According to the model, interest dissatisfaction and value commitments constitute the precipitating dynamics while power dependencies constitute the enabling dynamics. The precipitating dynamics are those intra-organisational dynamics that motivate organisational change. However, Greenwood and Hinings (1996) suggested that the enabling dynamics determine the direction rather than the precipitating dynamics implying actors holding power in the organisation. Greenwood and Hinings' model even though explains how organisational response is determined, it does not explain complexities of the transition process or the processes taken place leading to the institutionalisation of particular norms, values, and behaviours (Moll, 2003). More recently, Cummings and Worley (1997, 2001) focused on several aspects that are critical for successful change management. The authors (Cummings & Worley, 1997, 2001) provided and described an effective change management model (Figure 2.4) according to which the change management process is organized in five activities. These activities indicate change management concern regarding the motivation of people, the creation of a vision, the management of transition and the insurance of political support as well as of adequate resources that will be sufficiently provided.

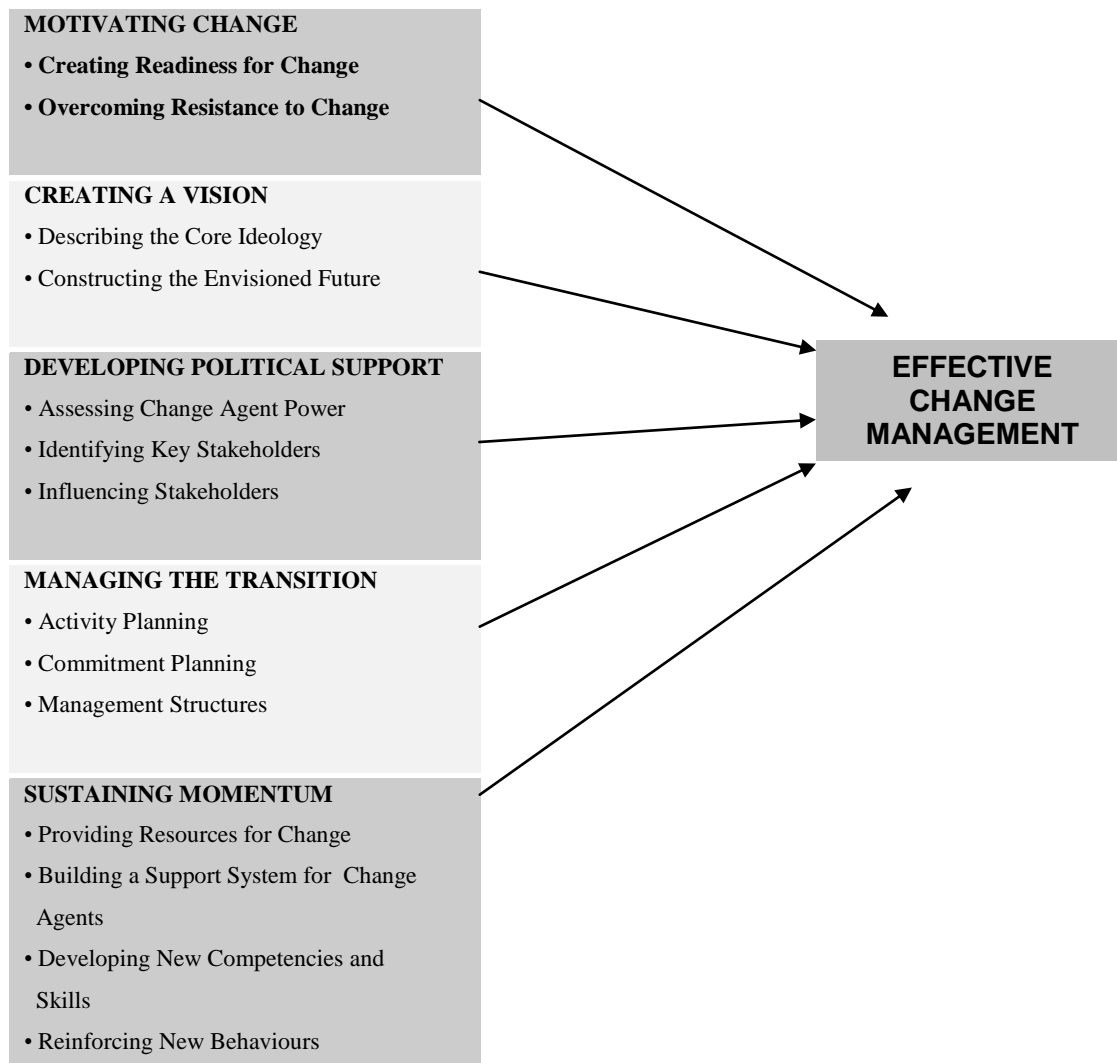


Figure 2.4: Activities contributing to effective change management (adapted from Cummings & Worley, 2001, p. 155)

Fernandez and Rainey (2006) mentioned that previous change management models seem to have similarities and also to share common factors towards a successful change management effort. In particular, the authors (Fernandez & Rainey, 2006) emphasized on eight factors that may influence the change process at different points while each

one of them may contribute to the successful change implementation by adding to the effect of the others, as follows:

1. Ensure the need of Change
2. Provide a plan of Change
3. Build Internal Support for Change and Overcome Resistance
4. Ensure Top-Management Support and Commitment
5. Build External Support
6. Provide Resources
7. Institutionalize Change
8. Pursue Comprehensive Change

Also, the views of various researchers concerning the critical success factors that have an effect on the carrying out of organisational change have been provided by Lanning (2001). These factors range from management support, vision, and planning to culture, communication, human resources, training and feedback. It is obvious by the above discussion the key role of people involved in change process for the achievement of a successful change as the desired outcome of change. Keeping communication and providing information maintaining thus the organization's vision and objectives of change clear during the change process while supporting people to adjust to the continuously changing environment are the pre requirements for achieving successful change (Brisson-Banks, 2010).

2.4 Summary

This chapter reviewed the research literature on institutional theory and its strands, and the most relevant organisational change theories such as the change in MA systems and processes. It drew on issues such as reasons behind accounting change, the driving and enforced dynamics and their interactions, phase models of change toward gaining a successful insight in the respective field. Institutional theory assumptions and its strands discussed prove the rationale in arguing that an institutional perspective that integrates NIS and OIE expands the levels of analysis since it integrates macro- and micro- organizational factors. Furthermore, it provided a thorough understanding of the organizational actions and practices in terms of MA change. Following, the MA change discussed with regard of its nature, preconditions and processes of change. The accrual accounting system considered as a key component of MA change and regarded as a financial information system in terms of costing information and budgeting and financial reporting. Finally, an attempt was made to gain an understanding of the notion and the nature of change, as well as, the why and how change is triggered and affected by the dynamics of the change process. The change process and the better understanding of the stages which take place towards the successful organizational response and reaction and the institutionalization of the new rules and routines were discussed. According to the various authors' views on critical success factors in the process of carrying out organisational change, it is obvious that keeping communication and providing information maintaining thus the organization's vision and objectives of change clear during the change process, while supporting people to adjust to the continuously changing environment are the pre requirements for achieving successful change.

From a comparison of data with the theories presented in this chapter a theoretical framework emerged. This framework allows for an understanding of the external pressures and intra-organisational dynamics that enforced accounting change and embedded in the MA change process itself. The following chapter (Chapter 3) outlines the theoretical framework used to understand MA change within the Greek HEI context.

CHAPTER 3

Theoretical Framework considerations

3.0 Introduction

This chapter aims towards the development of a multi-approached theoretical framework that will facilitate the understanding of the research problem. Such a framework will provide the fundamental tool in order the dynamics of guiding change to be indicated and a deep understanding of the process of change on a micro- level to be derived. MA has been considered as a response to pressures that may well be realized either from the external or from the internal organizational environment and they can foster the initiation spark that can ignite change. According to Wickramasinghe and Alawattage (2007, p. xviii) “That said, it is due to the interaction between technological/environmental changes and changing management/organizational ideologies”. This means that even though this chapter is mainly focusing on the intra organisational dynamics that may be activated to encourage change within an organization, environmental pressures for change are also being distinctly considered. In particular, this chapter describes and analytically explains a comprehensive and solid theoretical framework for gaining a deep understanding and explanation of the MA change process experienced within an organization. Further, it determines the key role of the external institutional and intra organizational dynamics that emerged affecting thus the change efforts and resulting in the implication of change. The theoretical framework employs various institutional theory strands and perspectives on change management theories regarding change

management processes that consider the ways in which MA practices can undergo change.

This chapter constitutes of six sections. The first section concerns institutional perspectives which have been adopted to conceptualise and explain MA change. The second section provides insights from several studies which have shown that institutional theory can constitute a useful framework for studying HEIs' response to external demands. The next section discusses a hybrid institutional approach of MA change derived from the integration of various strands of institutional theory such as OIE and NIS. This approach complementary with a managerial approach based on change management theories, presented in the fourth section, will provide a useful basis towards the development of a theoretical framework that will support the current research. A multi-approached theoretical framework adopted for the scope of this current study will be analytically demonstrated in the fifth section of this chapter. Finally, the sixth section suggests a summary of the above presented theoretical approaches and the common sense which derives from the above stated analysis.

3.1 MA change: An institutional perspective

MA change has been explored by various researchers with numerous approaches to be employed. Both interpretive and critical approaches as well as mainstream accounting approaches have been debated and formed theoretical frameworks to support the MA research such as change and/or developing and maintaining new accounting practices. Mainstream accounting researchers have not particularly interested with the operational context of accounting, and accounting change has been viewed as an outcome of

rational behaviour. Burns (2000) claimed that from a mainstream approach accounting change has been best described with relevance to ideal accounting configurations, instead of being explored via the complicated dynamics of change over time. Contradictory, interpretive and critical approach has been considered MA change in its real life context such as organizational, cultural and social context. According to the interpretive and critical accounting approach MA have been viewed as social practices and it is accepted that they are socially constructed, implying thus the key role of social actors involved in MA process (Ryan et al., 2002). In this vein, a wide range of social theories have constituted a solid base for accounting researchers towards examining process of accounting change in an organisational context (Burns & Scapens 2000; Moll et al., 2006; Ribeiro & Scapens 2006; Scapens, 1994). In particular, institutional theory has been employed extensively by the interpretive approach in order to study MA change. According to Moll et al., (2006) an increasing number of organisational researchers who seek to understand why and how accounting has come thus far, have adopted an institutional approach in order to conceptualise and explain MA change. More recently, the prominent role that institutional theories have taken in studying MA and accounting change has also been demonstrated by many researchers who have concerned the social and institutional dimensions of the organisational environments on macro- and/or micro- levels (Moll et al., 2006; Ribeiro & Scapens, 2006; Scapens, 2006; Tudor et al., 2012). It is claimed that since the 1990s institutional theory “has become one of the popular theoretical frameworks in management accounting studies” and its main aim is to provide “an alternative framework with a sociological flavour” (Wickramasinghe & Alawattage, 2007, p. 427). Institutional theory suggests that new accounting techniques may be introduced in response to external environment changes

legitimising organizational operations and securing thus organizational survival and stability (Burns & Scapens, 2000; Ribeiro & Scapens 2006; Scapens, 1994). It considers MA to be an institution within the organization and perceives it as a widely taken for granted routine that embeds established and wide accepted habits (Guerreiro et al., 2006). From an institutional theory perspective, Burns and Scapens (2000) have conceptualized MA change as change in organizational rules and routines. It is through the process of change and its institutionalization that MA, over a specific time horizon, may reflects the established rules and routines in an organisation as “taken-for-granted” ways of thinking and acting (Ahmed & Scapens, 2000; Burns & Scapens, 2000; Sulaiman & Mitchell, 2005). Therefore, an institutional theory perspective can constitute an alternative theoretical framework in explaining and interpreting change in MA experienced in specific setting.

3.2 A hybrid institutional approach

More specifically, NIS and OIE have often dominated and advanced the study of MA and MA change aiming towards the investigation of the environmental and organisations’ social and institutional dimensions (Scapens, 2006). Both institutional perspectives embed into their analysis social dimensions, such as culture and society, and they both focuses on which way institutions shape organizations and the actions of organizational actors and how new rules and institutions may emerge under the institutional pressures. According to both of them, institutions organize action while they provide definition of the behaviour and the appropriate actors’ relationships (Yazdifar, 2003). However, NIS focuses on the external pressures and the organizational environment’s institutions “that shape organizational structures and

systems” while OIE focuses on institutions that cultivate and shape the organizational actors thoughts and actions (Scapens, 2006, p. 11).

NIS has been broadly applied in order to provide explanation of the similarity among organisations within the existing institutional environments through isomorphism, emphasizing on the drivers of change such as: external rules, expectations and social norms. According to the NIS, organizations resemble each other, both in terms of structure and culture, when adopting institutionally acceptable formal structures, procedures and practices, achieving legitimacy and securing the essential resources for their survival, known as institutional isomorphism (Ribeiro & Scapens, 2006; Irvine, 2011). Institutional isomorphism is a result of coercive (statutory regulations), normative (professional groups’ influence) or mimetic (mimicking other organizations considered as successful) pressures which guide to the adoption of institutionally legitimate structures and practices (Table 3.1). NIS emphasizing on institutional isomorphism underlines conformity rather than diversity, even though organizations are considered as unique and complex “in their ways of learning and adopting new forms of organizing” (Irvine, 2011, p. 8). However, it is true that when organizational actors respond to decisions regarding the adoption of institutionally desirable practices, the formulation of rules, their implementation and the responses to those rules are affected by the unique organisation’s structure, routines and culture. In particular, when practices are not in alignment with existing organization realities then resistance may be arisen or even abandonment of these practices (Irvine, 2011).

Institutional isomorphism	Change characteristics
Coercive isomorphism	<ul style="list-style-type: none"> • Organizational change to comply with government legislations and regulations. • Structure features adopted due to pressures from the state, other organizations or society at large.
Normative isomorphism	<ul style="list-style-type: none"> • Organizational change through influence of professional managers and/or specialists. • Structural features adopted as a result of pressure from the state to reinforce the power of professional bodies who train and socialize organizational members to adopt certain organizational forms.
Mimetic isomorphism	<ul style="list-style-type: none"> • Organizational change by imitating other organizations. • Structural features are adopted by copying/imitating other successful organizations in order to cope with pressures of sources and to obtain legitimacy.

Table 3.1: Types of isomorphism and change characteristics (adapted from Sharma, 2007, p. 29)

NIS, even though has been broadly used by researchers in their studies on how accounting systems conform to external pressures, especially in the public sector (Dambrin et al., 2007; Lapsley & Pallot, 2000; Nor-Aziah & Scapens, 2007; Norhayati & Siti-Nabiha, 2009), it has been criticised for neglecting on intra organisational factors and the internal change processes (Arroyo, 2012; Dacin et al., 2002; Greenwood & Hinings, 1996; Ribeiro & Scapens, 2006; Scapens, 2006; Yazdifar et al, 2008). According to Greenwood and Hinings (1996, p. 1023), NIS

“is weak in analysing the internal dynamics of organisational change. As a consequence, the theory is silent on why some organisations adopt radical change whereas others do not, despite experiencing the same institutional pressures”.

From an OIE perspective internal organizational dynamics of change are concerned with MA practices and systems in terms of how, why and in what way MA practices evolve over time and how they are explained (Burns, 2001; Scapens, 2006). Burns (1999, p. 568) highlighted that “processual studies of accounting have important implications both for researchers and practitioners of accounting”. Burns and Scapens (2000) based on OIE assumptions developed an institutional framework that concerns change and resistance to change regarding the application of new systems, practices and values and constitutes an explanatory framework for the institutionalisation of newly introduced practices, rules and systems. Burns and Scapens (2000) have provided a division of the institutionalisation process (Figure 3.1) into four sub-processes. These are: a. encoding, b. enacting, c. reproduction and d. institutionalisation.

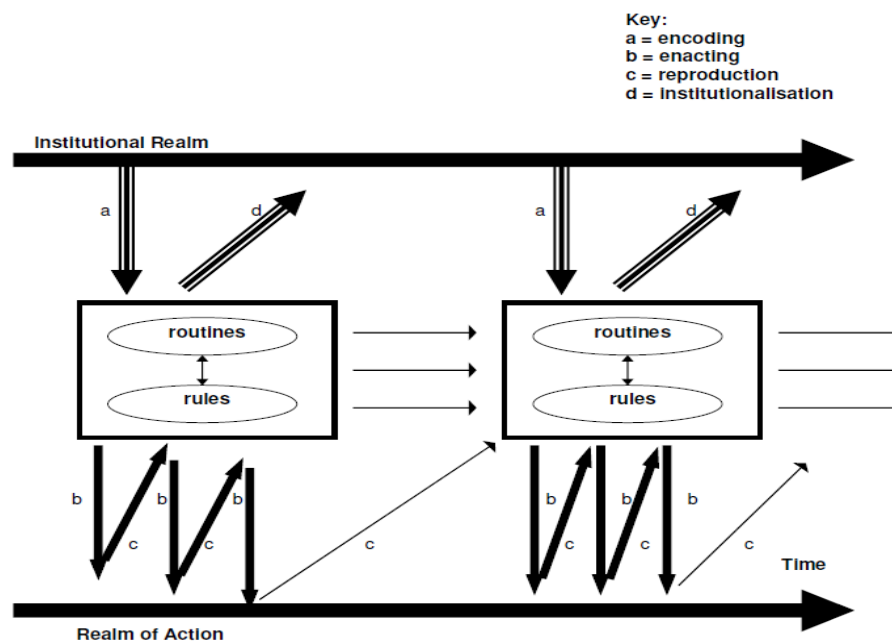


Figure 3.1: Process of institutionalization (Burns & Scappens, 2000, p.9)

In Burns and Scapens framework “taken-for-granted” assumptions, guiding individual behaviour, comprise the institutional principles. In the institutional realm, during the encoding process, institutional principles become encoded into rules and routines linked to the actions that are taken over time by the organizational actors. In particular, actions follow the rules and routines, with rules to be considered as the standards of activities that pertain to the behavioural structure within an organisation and routines to be referred to the repetitive use that creates order. While rules, as formalised statements of procedures, is suggested that they can change at discrete time, intervals routines, as procedures in actual use, are considered as being in continuously and cumulatively changing process (Burns & Scapens, 2000; Karusinen, 2001; Scapens, 2006). As Figure 3.1 indicates, the routines in use incorporate the dominant institutional principles and shaping new rules will influence in turn the routines (Burns & Scapens, 2000). Thus, the encoding process, even though it is affected by the existing rules and routines, it also aims to new institutional principles. In the realm of action, during the enactment process, rules and routines that encode the desired institutional principles are being enacted by organisational actors. Enactment of rules means that they are used in organizational daily activities (Yazdifar, 2003). Therefore, the institutional realm alerts into the realm of action via the enactment and encoding processes (Burns & Scapens, 2000). The third process considers a behaviour that is repetitive and leads to routines that can be reproduced. This process is considered as part of a continuous process of “social validation” and it will in turn result to the transformation of some specific values, embedded in rules and routines, in “shared taken-for-granted assumptions” (Yazdifar, 2003, p. 20). According to Yazdifar (2003) this transformation process involves the institutionalization of the values embedded in rules and routines. During

the stage of the fourth process, rules and routines become institutionalised by the repetition of actions and thus create new elements in the institutional realm. The steady reproduction of routines, as an outcome of the repetitive behaviour by individual actors, results on the dissociation of standards of behaviours from their historical circumstances. The new routines are “the way things are” and thus they are institutionalized (Burns & Scapens, 2000, p. 11). Burns and Scapens’ (2000) institutional framework has broadly accepted and used in studies of organisational change process at an intra- organizational level considering conformity or resistance to change. The framework published by Burns and Scapens (2000) constituted a starting point for researchers who were interested in the study of MA change and change process (Abu Kasim, 2004; Busco et al., 2006; Guerreiro et al., 2006; Lukka, 2006, 2007; Ribeiro & Scapens, 2004; Siti-Nabiha & Scapens, 2005; Soin et al., 2002; Spraakman, 2006). The focus of the OIE researchers was placed on change, evolution and practical issues and provided a more thorough look at the internal life of the organisations. However, even though this framework has also recognised the existence of external influences on the process of MA change within organizations, it has not devoted enough attention to the external influences factor.

Based on the above discussion it can be assumed that the NIS approach focuses on the impact of macro level institutions on the internal structures and systems of organizations without considering intra organizational issues. The emergence, sustainability or change of organizational activities, such as accounting related activities, can be appropriately considered via the OIE approach. Consequently, a hybrid institutional theoretical approach drawing on insights of both NIS and OIE

would provide a broader foundation of exploring, explaining and deeper understanding MA change. Yazdifar (2003) provided a comprehensive rationale highlighting that, using a hybrid institutional approach, how external policies can be embodied to internal organizational processes can be conceptualized. In other words, how can institutions at extra- or macro- organizational level become institutions on intra- or micro-organizational level. Incorporating organizational factors at both extra- and intra-organizational level the hybrid institutional framework is considered as the most appropriate to conceptualize how intra- and extra- organizational factors interact (Yazdifar, 2003). In this vein, a hybrid institutional approach is adopted in this study in order to explicitly illuminate the MA change in case of the Greek HEIs. This hybrid institutional approach will be complementary supported by a managerial approach based on management change theories as follows in the next section.

3.4 A managerial approach: Kurt Lewin's three phase model

According to the existing organizational literature one common approach to start looking at the complex phenomenon of change is searching for the appropriate ingredients and factors that results on the successful change efforts. Indeed, change management literature has usually concerned to identify opposed change sources and provide methods, as means for overcoming restraining forces and enhancing driving dynamics to change. In this vein, Lewin's (1951, 1958) three phase model of change is considered as providing an appropriate framework to be used in studies regarding planned and/or intentional organizational change and in dealing with change dynamics, called thus "Field Force Analysis". According to Armstrong (2006) Lewin's model suggests a methodology for change analysis as the following box (Box 3.1) indicates:

Field Force Analysis, Lewin (1959)

- **Analyzing the restraining or driving forces will affect the transition to the future state - these restraining forces will include the reactions of those who see change as unnecessary or as a constituting a threat.**
- **Assessing which of the driving or restraining forces are critical.**
- **Taking steps both to increase the critical driving forces and to decrease the critical restraining forces.**

Box 3.1: The Field Force Analysis (adapted from Armstrong, 2006, p. 347).

Field Force Analysis has been broadly used to investigate the balance of driving and restraining dynamics when change is planned to take place. According to Lewin's Field Force Analysis, individuals' behaviour depends on the "dynamic balance of forces in opposing directions" (Kritsonis, 2004-2005, p. 1) such as the driving and restraining forces. Driving forces tend to spark change and sustain it and have been considered as being needs, ambition or goals that guide individuals towards change something. Restraining forces have been seen as acting to an opposite direction than the driving forces towards change rather than independent forces that act by themselves. The balance of driving and restraining forces on a daily basis is an equilibrium state or a state of "quasi stationary equilibrium" (Lewin & Gold, 1999, p. 279). Change could initially start when the balance of driving and restraining forces alters and individuals' behaviour is guided away from the "status quo". Successful change could finally achieved by strengthening the driving forces and moving thus beyond an equilibrium state and/or reducing the strength of opposing dynamics and outweighing the resistance of inhibiting forces.

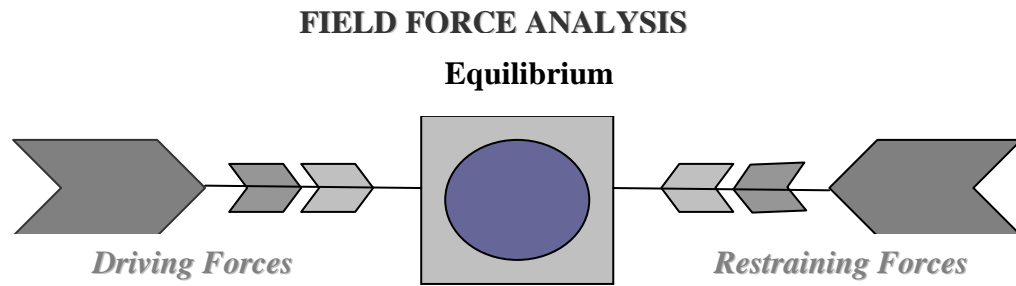


Figure 3.2: Lewin's Field Force Analysis (adapted from Kaminski, 2011).

Furthermore, this involves people need to change. In particular, according to Lewin (1958) accomplishing change means change at all levels, such as individual level, organizational level and interpersonal level (Sharma, 2008). People in the organisation need to undergo change in terms of behaviour, values and skills with the main focus being the instrumentation of organisational change. Also, systems and structures in terms of rewarding schemes, working, reporting and designing systems as well as climate and interpersonal style with regard to interaction among people, management conflict and decision making within the organization need to undergo change. In summary, based on the three phase model of Lewin (1958), the states and the underlying processes of each state are outlined in Figure 3.3.

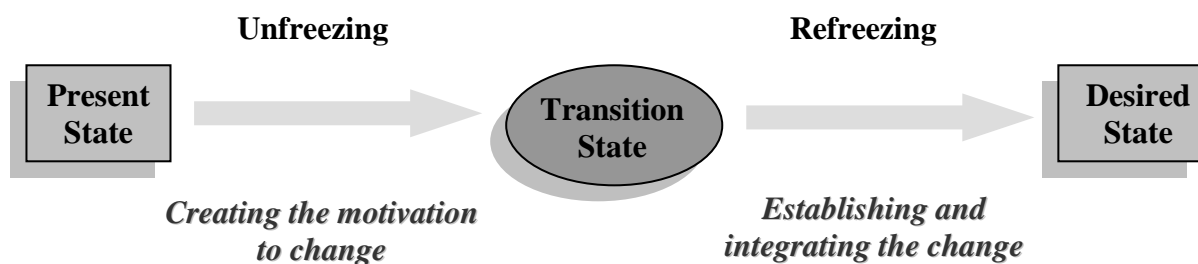


Figure 3.3: The process of change (adapted from Mecca, 2004).

3.4.1 Unfreezing/Motivating

Unfreezing is the first stage in the three steps Lewin's (1951, 1958) model which supports that effective navigation of the unfreezing process is a requirement of a change effort (Stevens, 2013). Key elements of the unfreezing phase are the preparation for change by helping people to accept the forthcoming change and breaking down of the status quo. Unfreezing will lead towards the realization of the necessity for change (Ritchie, 2006). As a result the need for change will be emerged. Unfreezing phase is considered as a motivation phase. When a disruptive force affects the status quo people are motivated to discontinue some aspect of their behaviour (Mecca, 2004). Unfreezing renders as invalid and non-operational the existing operational methods and patterns of behaviour. This is accomplished by changing the forces acting on the system. Indeed, driving and restraining forces have a crucial role in this phase. In particular, change will not be facilitated if the forces that restrain it are greater than or equal to the forces that drive it. However, introduction of a driving force is not sufficient on its own to result on the equilibrium of the change and the creation of motivation to change is needed (McShane & Von Glinow, 2001; Schein, 1996). According to Armenakis and Harris (2002, p. 169) people during unfreezing phase will become "ideally its supporters" or in other words "Once unfrozen, people become active problem solvers and motivated to change" (Mecca, 2004, p. 2). Unfreezing can be achieved by the use of supportive activities including the motivation of involved people by preparing them for change, building trust and recognizing the need to change, and actively participating in recognizing problems and brainstorming solutions (Robbins et al., 2003).

3.4.2 Transition/Managing

Since the phase of unfreezing/motivation is completed the phase of transition/managing follows. According to Bridges and Michell (2000), the outcome of any change effort is determined by transition dynamics. The neglect of the transition dynamics can constitute the potential cause for any change effort's negative outcome. Schein (1996, p. 62) stated that unfreezing "creates motivation to learn but does not necessarily control or predict the direction" implying that unfreezing is needed to be followed by transition phase. Change is considered as a physical move from point A to point B. During the moving state people are neither setting a different/new pattern of behaviour nor do they perform and act in the way they did previously. This portrays a fragile and unstable state in which the current equilibrium has been disrupted by the motivation towards change while there is no formation of a desired state yet (Mecca, 2004). However, even though it is made, it does not mean that it is successful if it is not followed by a successful transition. Transition is considered as a psychological process through which people need to accept and adapt to the new situation. Successful change requires that the past be abandoned implying thus the cultural and structural change and the establishment of new values and processes (Burnes, 1996). Change will not be realized and work without the completion of the transition process (McKee et al., 1998). When change enters the transition phase people may have to face new ways to accomplish their jobs, and to support change pre requires the acceptance of these changes (Ritchie, 2006). This involves the abandonment of the previous ways of "doing things", the transition to a state of neutrality and the consequent forward move. Moving forward means that the abandonment of the previous ways of "doing things" needs to be replaced by goal consistent actions and new ways of "doing things".

Establishing new ways of “doing things” implies learning, new information and new structures to secure the new ways of “doing things” as well as new strategies and new types of behaviour, moving thus the organization to the new desired state (Senior, 2002; Werner, 2002). Furthermore, the transition process has been regarded as the phase of managing the change process. This is in the same vein with Lewin’s (1947a) view who claimed that the complexity of the forces concerned during transition phase do not facilitate the prediction of any particular outcome for the change planned. According to Kotter and Schlesinger (2008, p. 3), even changes that are considered as being “positive” or “rational” involve “loss and uncertainty”. Due to different reasons, people’s reaction to change may vary from “passively resisting it, to aggressively trying to undermine it, to sincerely embracing it”. Thus, all the forces need to be taken into account and managed, and the options available should be considered and evaluated on a basis of trial and error. Powerful leaders, connecting peoples’ views to well-respected, reinforcement, encouraging people to be persuaded to the change benefits, working in groups and obtaining support are effective ways to maintain motivation for change and manage people during the transition phase (Kritsonis, 2004-2005; Lewin, 1947a; McKee et al., 1998).

3.4.3 Refreezing/Institutionalizing

Refreezing is considered as the final step in Lewin’s model. The refreezing state can be viewed as the process in which changes are put into effect and people achieve new attitudes and cognitions that express through the day to day behaviour while new ways of working are embodied. It is suggested that refreezing is when people work through the new methods and ways of accomplishing daily tasks or in other words when people

institutionalize changes (Richie, 2006). Refreezing phase is considered thus as the institutionalizing phase. Refreezing phase is accomplished when new activities become a norm and people undertake productive action by habit and not by thinking. In the institutionalization phase the outcomes of change may be compared with those before the change occurred and new activities need to be properly aligned to the individual personality, behaviour and work environment in order to remain effective and avoid the possible reemerging of old actions. This implies that refreezing may need changes regarding culture, policies and practices at organizational level (Dawson, 1994; Stein & Kanter, 1993; Schein, 1995, 1996). Otherwise, people behaviour will be only a temporary adaptation to the pressure of the change (Mecca, 2004). This alignment needs to be linked to a reward scheme and positive attitudes in order to succeed. Reinforcement of new patterns and institutionalization of new behaviours through formal or informal mechanisms, such as policies and procedures, are supportive actions forward the implementation of change during this final stage (Robbins, 2003)

Resuming, Lewin's three phase model (1951, 1958) underlines how change efforts are affected by combining the promoting or inhibiting change forces. In order to achieve change the combination of the driving forces needs to be greater than the combination of the restraining forces (Robbins, 2003). Furthermore, the successful plan and management of both unfreezing and transition phases effect on the refreezing phase and result on the desired institutionalization of change. Unsuccessfully planning and managing of both the transformation phase, even though refreezing happens, the desired result of institutionalization may be not achieved (Mecca, 2004). Following, the above arguments will be expediently used in constructing a multi approach theoretical

framework in order to deeply understand the MA accounting change experienced in case of the Greek HEIs and the research question to be strictly answered.

3.5 A multi approach framework construction

The current study focuses on providing an answer to the question of how HEIs in Greece responded to governmental pressures for accounting reform during the decade of 1998-2008; specifically, it focuses on the extent to which HEIs implement the accrual accounting system and the influence of the isomorphic and intra organizational dynamics on its implementation. The aim of this enquiry is to assist in providing a deep understanding of the external and internal dynamics that influence the adoption and implementation of the management accounting (MA) systems, resulting thus, to new daily accounting practices within certain organizations. As Burns and Scapens (2000, p. 21) stated:

“Management accounting systems and practices constitute organizational rules and routines, and in order to understand complex processes of management accounting change their institutional character has to be recognized.”

In this vein, a comprehensive and solid theoretical framework is developed for gaining a deep understanding and explanation of the process of change and the key role of the institutional and intra organizational dynamics to be determined. This particular framework employs various institutional theory strands and perspectives on change management theories, regarding change management processes that consider the ways in which MA practices can undergo change. It is based on multi theoretical approaches in order to explore key elements of change and management change process that

underpin the entire reform and the success or failure of change efforts. Given the complexity of change this framework is expected to mainly contribute to a thorough exploration and explanation of fundamental change management issues that should be concerned by actors who initiate or implement changes within specific organizational settings such a higher education sector.

As a starting point, NIS suggested that organisations respond to changing environments in order to render as legitimate, aiming to social worthiness and achieving thus societal support and mobilizing resources (Oliver, 1991). Based on the NIS's notion of institutional isomorphism exerted by coercive, normative and mimetic isomorphism pressures, this framework argues that certain organizations such as the Greek HEIs may have introduced changes to their MA systems initiated and resulted by these forms of pressures. On the other hand, Broadbent and Laughlin (2005, p. 9) stated that an initial “kick” is likely to stimulate change. This “kick” could possibly take a number of paths as a management response to internal or external pressures (Rautiainen, 2008; Siti-Nabiha & Scapens, 2005; West & Carnegie, 2010). This view could then be appropriately used to identify the MA change and the adoption of a new accounting system that was precisely what happened in the case of Greek HEIs. The HEIs in Greece have been faced with this “kick” toward the implementation of the accrual accounting system via legal pressures (P.D. 205/98). Similar to Greenberg and Baron (1993) who described organisational change with some examples (Chapter 2, p. 51), the Greek HEIs have been challenged by external unplanned changes, such as government regulations, which have been translated into internal planned changes, such as changes in administrative systems e.g. management accounting systems (Fig. 3.4).



Fig. 3.4: Changes pressures in Greek HEIs (adapted from Greenberg & Baron, 1993, p. 624).

However, contradictory to the notion of institutional isomorphism, Oliver (1991, p. 175) claimed that “organisations do not invariably conform to the rules, myths, or expectations of their institutional environment” by adopting thus various strategies in response to institutional change pressures. The organizational responses may vary

“from conforming to resistant, from passive to active, from preconscious to controlling, from impotent to influential, and from habitual to opportunistic, depending on the institutional pressures toward conformity that are exerted on organizations” (Oliver, 1991, p. 151).

It is also discussed that coercion and the degree of coercion exercised on organizations is a key determinant for the adoption of change and the change of the existing status quo, since organizations themselves are usually reluctant to implement the changes required (Munir et al., 2011). Organizations can develop a consciousness of the need to change and decide upon the adoption of new practices as long as they are subjected to external institutional pressures (Burns, 2000). Furthermore, it is usually possible for organisational actors to respond in different ways in the implementation of decisions made on the introduction of change rather than passively to accept it (Munir et al., 2011). Accordingly, in order to fully understand changes attempted in MA systems within specific organizational settings, such as the Greek higher education sector, it is

required to thoroughly investigate and analytically interpret the types of institutional pressures that enforce change and the way in which organizations respond to change pressures due to the intra organizational forces that are enacted in change efforts.

For purposes of the scope of this study, MA practices are viewed through relationships between rules and routines, with the way “things should be done” reflecting rules, while the way “things are done” reflecting routines (Burns & Scapens, 2000). Aligned with institutional perspective, MA systems are considered as “inextricably linked to the prevailing rules and norms which structure social and organisational life” (Ribeiro & Scapens, 2006, p. 95). The framework of Burns and Scapens (2000) provided insights on the change of existing MA practices, contradictory to the stability of practice that is reinforced by unchanging institutional forces. It is possible for change to occur and be realized at any given point in time (synchronic change) within the institutional realm. Indeed, by synchronic change new MA practices may be introduced within institutional realm under various isomorphic pressures. Furthermore, the recurrent enactment and the reproduction of new rules and practices, expressed by daily routines in the action realm, may cause change to occur over time (diachronically). For example, in the case of Greek HEIs a synchronic change has been emerged initially in the institutional realm as new MA rules e.g. accrual accounting system introduction and implementation have been demanded by the law (P.D. 205/98). This synchronic change was expected to occur diachronically via the reproduction recurrence of accounting rules and practices reflecting new routines of accrual accounting systems in the realm of action. As Burns and Scapens (2000, p. 11) stated, the institutionalisation process “involves a dissociation of patterns of behaviour from their particular historical circumstances” and

new rules and routines become institutions or simply the “way things are”. These institutions will then be encoded into the ongoing rules and routines that will facilitate the shaping of new rules, and so on. However, existed institutions are more likely to resist change and influence action when they are widely and deeply accepted. Burns and Scapens (2000) defined institutionalisation as a process of encoding, enacting, reproducing and institutionalizing formalized rules into ‘taken-for-granted’ routines. During the encoding process institutional behaviours are translated into a system of rules. In turn, enacting these rules depends on their alignment and compatibility with the existing institutions. If new rules and routines challenge existing institutional principles, organizational actors are likely to respond negatively to the enactment of these rules and routines, depending on their capability and the power resources available at their disposal. Thus, the enacting process may be subject of resistance (Burns & Scapens, 2000; Yazdifar, 2003). Burns and Scapens (2000) argued that in order for the new rules being successfully enacted, the norms and values underpinning them need to be compatible with the norms and values of those who will enact or implement them otherwise the enactment process could be subjected to resistance. It may be easier to implement change consistent with the established institutional routines than it is in the cases where change modifies the existing particular way of doing things or else “norm” (Burns & Scapens, 2000). Reproduction of the encoded rules, either in the same or through a revised form, follows the encoding and enactment phases. Institutionalisation occurs when routines and rules “take on a normative and factual quality”, become through the process of institutionalisation taken for granted and do not associate with various people’s and/or group’s interests (Burns & Scapens, 2000, p.

11). Once it has happened, the process then continues as it constantly evolves the repetition of the new practices that are institutionally acceptable.

The above discussion underlined apparently that perceptions and behaviours activated of the organisational actors who are affected by the new system may largely determine the acceptance or the resistance to the implementation of a new MA system. Thus, aiming to a thorough understanding of the change management process and the guiding dynamics forward, insights deriving from change management theories will be further employed. Change management theories regarding change management processes that accommodate the ways in which MA practices can undergo change will be adopted to help identify the change management dynamics and the ways change is managed within organizations. Specifically, Lewin's Field Force analysis of change in Cartwright (1959) by the three phases model provides a certain construct of analyzing, assessing and taking fundamental and critical steps to drive organizational actors' behaviour and enforcing the drivers rather than the restraining forces of change. The suggested framework (Figure 3.5) presents the intra organisational dynamics which have or not been mobilised in order for change to occur under the external institutional pressures: institutional dynamics and change dynamics. Using as a start point the NIS perspective this framework employs external institutional dynamics driven by the environment of the organization such as isomorphism pressures which are exerted by the coercive, normative or mimetic isomorphism forces.

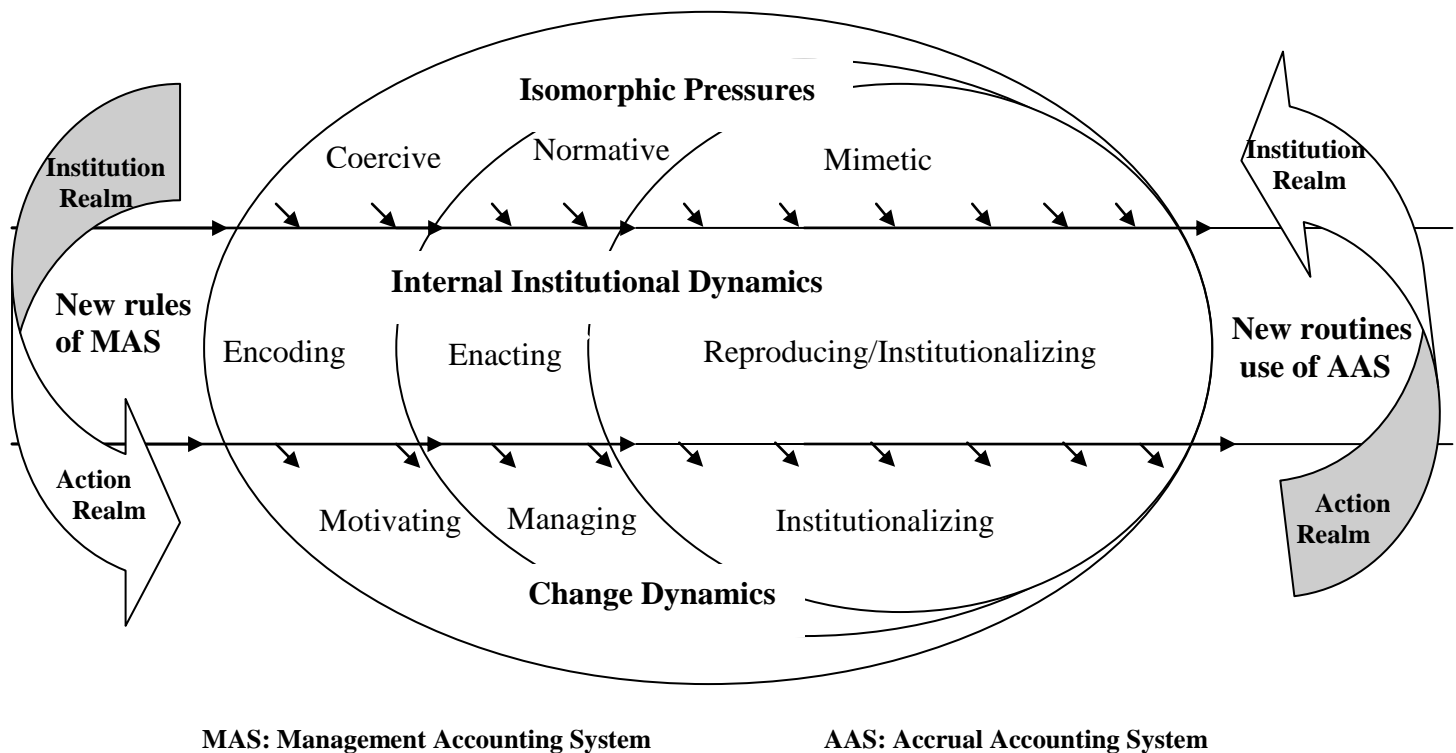


Figure 3.5: Management Accounting Change Institutional Process (Author's Own).

According to the framework, coercive isomorphism results from external pressures that dominant organisations exercise on other dependent and/or subsided organisations such as the state's regulations governing public agencies, including in most cases funding and resource allocation. In Greece, the HEIs are public sector entities and government regulates them according to the desired objectives and by using appropriate instruments. In particular, with the P.D. 205/98 the enhancement of the accountability and effectiveness aimed for the Greek HEIs through the introduction of the accrual accounting system. Normative isomorphism stems primarily from professionalization. In the specific area of higher education norms and values dominant in the higher education context may influence and determine the appropriation of the HEIs' behaviour and governance processes, mainly based on informal rather than formal rules

and guides. In this sense, Greek HEIs under the normative isomorphic pressure may have been enforced to adopt systems and processes that have been considered to be appropriate as dominant in the area of higher education or other relevant public agencies or other professional groups, such as the accrual accounting system that was introduced by the P.D. 205/98. Mimetic isomorphism is guided by ambiguous goals or uncertainty and organisations may imitate other organisations in the same or relevant organizational field that are considered as more legitimate or more successfully functioned or organized (Csizmadia, 2006). For example, some of the Greek HEIs under the mimetic isomorphism may have imitated other similar HEIs with regard to the adoption of the accounting reform and the accrual accounting system as successful perceived. Even though the three types of isomorphic pressure may not be always distinguished but, in fact, may operate simultaneously, they all can affect the organizational behaviour enacting the emergence for the adoption of a reform regarding procedures and structures of the organization (Csizmadia, 2006; DiMaggio & Powell, 1983,) such as the implementation of the accrual accounting system in the Greek HEIs. Indeed, the current framework suggests that the three isomorphic forces are not distinct but each of them may influence the others, as well as, the internal environment of each individual organization. For example, the coercive force driven by law may affect the professional rules and activities, creating and shaping regulations and appropriate norms in the relevant organizational field, activating this way the normative isomorphism mechanism in each individual organization. In this case, the normative force which is emerged may in turn influence the mimetic isomorphism force; thus may activate the mimetic isomorphism mechanism of each individual organization in order

to secure its legitimacy and its successful position in the organizational field, such as the Greek higher education sector.

However, in the same line with Oliver's (1991, p. 146) view supporting the variation of organizational behaviour "from passive conformity to active resistance in response to institutional pressures" this framework supports that since the initiation of change by a stimulating "kick" the organizational decision makers and actors who are involved in change process may be (or not) employed in order to forward (or restrain) change, influencing thus the organizational response to institutional pressures. Those organisational actors, such as leaders and managers, who aim towards the institutionalisation of new principles, should undertake the effort to concretise the new routines and rules within the organisational environment. The achievement of this target should be gained through the enforcement and activation of the change process, which would guide ultimately in using the new rules and routines as "taken for granted", considered as the ultimate positive outcome of a successful change process. As stated previously in the introduction chapter, the reform of the accounting system used in the public sector in Greece - including the Greek HEIs - was announced initially in 1997 and was promoted later with the P.D. 205/1998. In the case of the Greek HEIs the actors who had the responsibility to implement the announced changes imposed by law (P.D. 205/1998) were the Rector and the Senate of each individual HEI. In terms of their European equivalent counterparts these constitute the Executive Head, the Academic body and the decision making body of the HEI. The new declared principles of this attempt of accounting reform were:

- the increase of the efficiency and effectiveness of public administration e.g. the improvement of the operational and the economic performance
- the reduction of public expenditure, and
- the assessment of the degree of efficient use of the resources allocated to each public organisation e.g. the improvement of the organizational accountability and control.

According to the perspective of OIE, the successful integration of new concepts into a system occurs when these become institutionalised. Institutionalisation of new concepts means that they are being converted into new habits, values, and routines within the organisational environment (Guerreiro et al., 2006; Oliver, 1997). In the suggested framework the institutional analysis of the accrual accounting system implemented within the Greek HEIs adopts the Burns and Scapens (2000) analysis and constitutes of three stages (Figure 3.5) indicating the institutional dynamics: Encoding, Enacting and Reproducing/Institutionalizing. The framework also indicates that during these three stages may similarly be activated the change dynamics, as they derive from the three phases Lewin's model: Motivating, Managing and Institutionalizing Change. Accordingly, the foundation for a successful MA change is proposed to be facilitated by the involvement and interaction of both institutional and change dynamics defined them as intra organizational dynamics. The intra organizational dynamics may interact and affect the institutionalization of new rules with respect to the three phase process identified as Phase A (Encoding/Motivating change), Phase B (Enacting/Managing change) and Phase C (Reproducing/Institutionalizing change). In consequence, the suggested framework (Figure 3.5) supports that two types of intra organisational

dynamics must be mobilised in order for change to occur: institutional dynamics and change dynamics. It focuses on three key dynamics of the change processes: Motivating, Managing and Institutionalizing change. These dynamics are interrelated with the institutional dynamics considered as Encoding institutional principles, Enacting new rules and at last Reproducing/Institutionalizing them e.g. using new routines unconsciously. The intra organizational dynamics that may emerge and interact in the organizational environment under the external institutional pressures for change reflect the coercive, normative and mimetic forces within the institutional environment of the organization. Encoding and Motivating for change, viewed as a coercive force, is the driver which guides to changes, while Enacting and Managing change, seen as a normative force, is the enabler towards the successful implementation of changes. At last, Reproducing and Institutionalizing change, perceived as a cognitive force which is expected to result in the successful implementation of change; the institutionalization of the new rules and routines. Otherwise, it will mean the failure of the changing process.

The analysis of change into various discrete phases concerns activities and techniques based on the unique attributes of each phase that may be adapted by managers and with phases usually may and do overlap (Burke, 1994). Based on Lewin's Force Field analysis and further change management literature, an analytical presentation, as well as, activities explanation of the MA change process/steps follows next (Fig. 3.6). The presentation of change process phases and steps in Figure 3.6 is inspired from the framework that is suggested regarding change management in public entities by (UNPD, 2006).

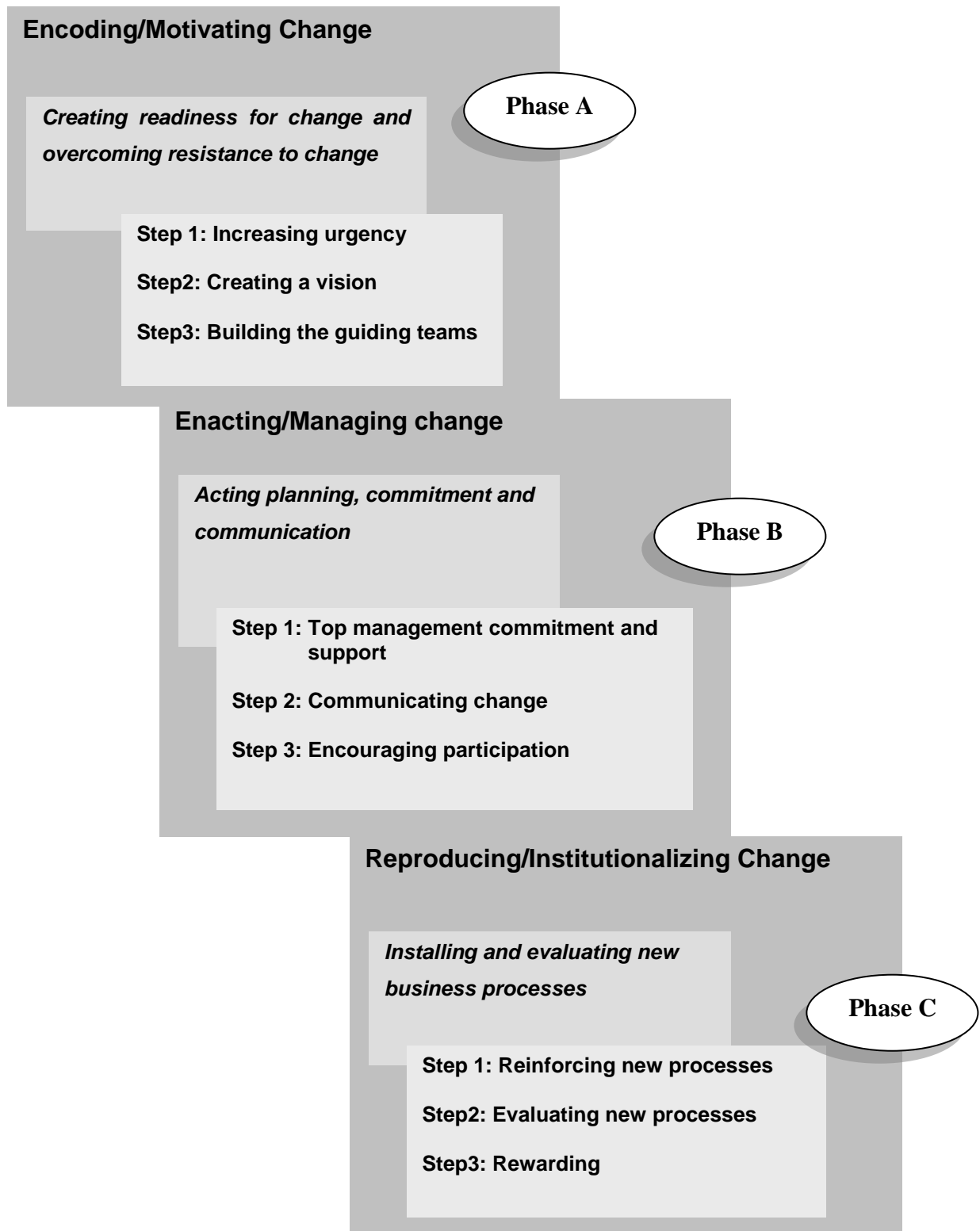


Figure 3.6: MA change process from a managerial approach (Author's Own).

3.5.1 Phase A: Encoding/Motivating Change

The Encoding/Motivating phase refers to the design and encoding into rules and routines of the new institutional principles and it is considered as the driver guiding the attempted change. However, it is shaped by the existing rules and routines which prevail at this stage as “taken for granted”. This means that the realization of effective change is very difficult even though organisations need to respond to external or internal environmental evolutions and undergo change. It is claimed that “Organizations as a whole and people specifically do not like to hear the word change” (Ledez, 2008, p. 113). It is said that people who prompt change enjoy it, in contrast with other people involved in change process who suffer from it (Marsh, 2001). Indeed, many types of barriers, which are either technical or individual resistance, inhibit the effective change (Bovey & Hede, 2001; Oakland & Tanner, 2007). As a pre requirement for the creation of the organizational capacity to effectively change, change readiness has been defined as

“the organization’s ability to develop and implement appropriate organizational changes to constantly adapt to environmental evolutions and/or organizational evolutions in either a reactive way or by initiating it” (Klarner et al., 2007, p. 12).

This means that readiness for change is considered with regard to the extent to which both internal and external organizational elements such as organizational structure and market position, as well as, organizational policies, resources and procedures can facilitate change initiatives (Stevens, 2013). Indeed, it is broadly suggested that change readiness is one of the key predictors of an ultimately successful change and with respect to the unfreezing phase of Lewin’s model it “refers to encouraging this type of

proactive process” (Stevens, 2013, p. 335). The understanding of the necessity of change, the identification of the key change drivers and final goals of change affecting individuals and their working environment is the start point towards overcoming change related problems. In other words, the organisational actors throughout the organisation need to be fully aware of the forces that drive change and motivated towards the goals that have been set in order change to reflect a visible reality for their personal and working environment. However, change is strongly correlated with resistance and the handling of resistance has been considered as a major factor of change success or failure. It is said that “resistance to change is an essential factor to be considered in any change process, since a proper management of resistance is the key for change success or failure” (Del Val & Fuentes, 2003, p. 153). It is also argued that people in organizations “are not against change per se”. People usually resist in “managerialistic change management initiatives” that are mainly perceived as serving particular group or even personal interest (Diefenbach, 2007, p. 137). Indeed, people are reluctant to change what is perceived as a threat to the existing patterns of behaviour or to their status or financial rewards (Amstrong, 2006). From a managerial point of view, resistance to change can be understood as the perceived behaviour of people who resist being adapted to changing conditions (Amstrong, 2006; Cheng & Petrovic-Lazarevic, 2004). Thus, it is required for achieving a successful organisational change to change people. The existing way of doing things is the basis of resistance to the new way of doing things (Byrnes, 2005). Therefore, initiatives of change need to be carefully planned and attention needs to be paid on their impact on people involved by “considering how it will affect people in their jobs” (Amstrong, 2006, p. 346). It is supported that management must clearly define change and its

benefits by communicating “endlessly and tirelessly” about the need of change and its points so that people’s fears to be abandoned (Armstrong, 2001; Ledez, 2008). Various authors almost unanimously argue that the organisational actors involved in and affected by the change process should share the same understanding regarding the reasons that caused the change effort (Lanning, 2001). However, it is also supported that “Gaining employee support and buy in is a critical first step in managing change, but leaders can’t stop there. Employees have to continually be “motivated to change their behaviours throughout the change” (Caudron, 2002, p. 3).

3.5.1.1 Step 1: Increasing urgency

The establishment of a sense of urgency and the awareness of the need of change are the first elements and a pre requirement of the initial phase of the change process (Armstrong, 2006; Cummings & Worley, 1997, 2001; Fernandez & Rainey, 2006; Kotter, 1996; Kotter, 2008). Armstrong (2006, p. 343) supported that “Conceptually, the change process starts with an awareness of the need for change” while Kotter (2008) claimed that raising urgency is the toughest step of the change process and without increasing urgency the most brilliant initiatives will fail. Urgency will make people to focus on the change ongoing and no time to look back at the “old way” (Kotter & Cohen, 2002). Therefore, there is a need for looking beyond what needs to change and to enforce people’s understanding of why the change is needed. According to Kotter (1996) a rate of 75% of management must be convinced that organization as usually operates is no longer a viable plan. The impact of change on programmes will be increased if top management succeeds in winning over hearts and minds and if it creates and re-creates a sense of true urgency. “True urgency is driven by a deep

determination to win, not anxiety about losing” (Kotter, 1996, 1998, 2008). This feeling of urgency must be common and shared by all the organisational actors, and employees need to internalize the need for change or else it will have a negative effect on momentum. The need for change has to be communicated clearly and in a persuasive manner by managerial leaders to all the organisational actors. Verification of the need for change and persuasion of external stakeholders and other organisational members is necessary prior to the implementation of planned change. Thus, it is concluded that the successful implementation of change depends on the ability of the top management to convince the organisational actors about the need for change and to disseminate information about it. In this term, the creation of a vision which will be compelling is necessary in order to convince and engage employees about the need for change (Fernandez & Rainey, 2006).

3.5.1.2 Step 2: Creating a vision

The next step in change process, after a sense of urgency is created, is thinking about the direction and the desired outcomes of the change, creating thus a vision and developing an appropriate plan and a specific strategy in order to achieve this vision and a future state (Cummings & Worley, 1997, 2001; Fernandez & Rainey, 2006; Kotter, 1995, 1996; Kotter & Cohen, 2002; McGuire, 2003). According to Kotter (1995) a vision is the image or a picture of a future state and “provides a valued direction for designing, implementing, and assessing organizational changes” (Cummings & Worley, 1997, p. 157). However, the success of any change effort depends on the clearness of the directing vision. Kotter (1996), states that the purpose of a good vision during the change process is threefold. Firstly, it clarifies the general

direction for change and assists in making many sub-directions more simply. Secondly, it motivates people to take action in the right direction. Thirdly, it helps to co-ordinate different peoples' actions in a remarkably fast and efficient way. Furthermore, Kotter (1995) introduced a rule of thumb:

“if you can't communicate the vision to someone in five minutes or less and get a reaction that signifies both understanding and interest, you are not yet done with this phase of the transformation process” (Kotter, 1995 p. 63).

It is clear thus, that the criteria for rendering a vision successful are to be simple and easily communicable within the organisational boundaries and accessible by all the actors involved regardless of the level of management. Kotter (1995) highlighted also the credibility of communication recommending that people must believe that change is possible in order to make “short- term sacrifices” even though they are not happy with “the status quo”. Change vision must always keep the change initiatives “alive” meaning that it has to be an integral part of the change process or else it will lose credibility. Managers need to “live the change vision” and avoid “talking, but not walking” (Kotter, 1998). There is ample evidence deriving from the literature of public management on determining the need and vision for change and its communication to as many actors as possible via means of a continuous exchange process of both listening and learning (Fernandez & Rainey, 2006). More recently, Kotter and Cohen (2002, p. 5) suggested action to be followed and/or to be avoided in order for the change vision to be effectively shared:

- Articulate a vision that is so clear that it fits on one page and takes less than a minute to share.

- Articulate a vision that's moving — such as a commitment to serve people.
- Create a bold strategy and move ahead quickly.
- Do not assume that logical plans and budgets are enough.
- Do not rely on overly analytical, financially based vision exercises.
- Do not rely on visions that just slash costs. These produce anxiety and depression, but rarely change.

3.5.1.3 Step 3: Building the guiding teams

The need for a coalition that will guide and support change has been stressed out by multiple authors. Indeed, a force that will be powerful enough to assist towards sustaining the change process is required since achieving a successful change is too difficult (Fernandez & Rainey, 2006; Kotter, 1995, 1996, 1998; Kotter & Cohen, 2002). In contrast, the lack of a guiding coalition could imply weakness in the completion process, even though it could make a short term progress (Kotter, 1995; Kotter & Cohen, 2002). Thus, there is a constant need for a strong coalition with the proper synthesis which will be characterized by the objectives shared commonly among its members as well as by the level of trust. A group of organisational actors can constitute a coalition that will guide the effort, support the actors, and use resources efficiently in order to induce all the people involved to change (Fernandez & Rainey, 2006). According to Kotter and Cohen (2002, p.3) a powerful coalition is “made up of the right people, and it demonstrates teamwork”. By “right people” the authors (Kotter & Cohen, 2002) emphasize on people with leading capacity, credibility, high level skills and power to manage change. The guiding team is required to be characterized by knowledge of the external and internal organizational and operational environment,

credibility, authority and managerial and leadership skills. All these are apparently related to the ability of the guiding team to create and communicate a change vision, to remove all barriers that may inhibit change process and to plan, organize and control the entire change process. A well-functioning guiding team may be able to provide clear explanations regarding the necessity of change and the desired direction as well as the appropriate strategies to achieve change vision goals (Kotter & Cohen, 2002). Summarizing, there is a need to associate change with a sense of urgency. Change also needs to be driven by forces that will manage to overrun the hurdles posed by the forces that restrain it. The motivation of employees is a requirement prior to undertaking change. Employees need to be convinced about the benefits to be derived from the change process as well as of its positive impact on both the personal and the working environment level. Thus, creating and communicating a clear vision is the bridge towards the desired outcome of change guided by a strong coalition.

3.5.2 Phase B: Enacting/Managing Change

However, actual change requires more than simply people being convinced of the need for change and a new vision. According to Armstrong (2006, p. 343) “managing change during the transition phase is a critical phase in the change process”. Managing change is not a simple goal since aspects, such as resistance to change, stress, low stability and conflict, have to be managed (Armstrong, 2006; Lucas, 2004). Strategy and action needs to be developed in order change to be achieved (Fernandez & Rainey, 2006). A strategy must provide direction towards the desired goals and indicate the appropriate measures for overcoming obstacles. Planning carefully change is related to supporting and commitment (Nickols, 2012). Action should involve top management commitment

and support as well as communication of the strategy and vision in order the awareness of people on “what is happening, why it is happening and how it will affect them” and also an understanding to be achieved (Armstrong, 2006, p.354). Thus, people commitment and participation are considered as being key elements in the change process that will be enabled and energy will be released (Armstrong, 2006; Kotter, 1996).

3.5.2.1 Step 1: Top management commitment and support

The importance of top management support and commitment in the successful change has been broadly discussed (Amstrong, 2006; Cascio et al., 2010; Herscovitch & Meyer, 2002; Fernandez & Rainey, 2006; Mecca, 2004). Amstrong (2006) highlighted the key role of the top management strong commitment for sustaining change. According the Herscovitch and Meyer (2002, p. 475) commitment is “a force (mind-set) that binds an individual to a course of action deemed necessary for the successful implementation of a change initiative”. Most of the change management practices stress that true change is very difficult or even impossible to be gained without top management commitment. It is most likely to succeed change when top management commitment is clear and strong (Sheard, 2001). Top management needs to realize and accepts its responsibility and the importance of its role within the change process. Adopting change at personal and organizational level, such as changing structures and procedures, demonstrates its support and commitment to the transformational effort of change. This needs to be demonstrated through strong evidence of support, commitment and leading by own example (Keramati & Azadeh, 2007; Lanning, 2001). It is claimed that top managers’ support is not sufficient by itself for achieving change

but undergoing change of themselves should be seriously considered as a key part of the transformational effort (Lanning, 2001). Top management commitment includes action by communicating and reinforcing change, facilitating the achievement of the desired goals and vision, developing and implementing values that required for change success and personally involved in allocating valuable resources and ensuring that change is developed and implemented. It is also implied by involvement in decision-making processes through work teams and setting strategic organizational agenda (Keramati & Azadeh, 2007). With top management commitment and participation in change, high involvement and collaboration at all levels are gained during the change process (Beer & Nohria, 2000).

Furthermore, sufficient resources are required to support the successful process of change. Through wide participation and other means, top management needs work towards developing of internal support and overcoming resistance to change, even though a well justified and planned change has initiated (Fernandez & Rainey, 2006). The co-operation across different organisational functions is necessary for the successful implementation of change in today's complex business environment. Problems have to be seen through a wider prism and beyond the departmental and even the organisational boundaries. The organisational structures and procedures need to support the new way of doing business in order to make it easier for people involved to attain the desired change. Thus, it becomes clear that organizational structures and procedures are organisational aspects that can either pursue or restrain development. These supporting actions need to be closely aligned with the direction and goal of the

intended change. Significant and consistent results can be realized and achieved only through an all-encompassing change (Lanning, 2006).

It is also claimed that training that enhances knowledge and skills is a supporting element in change since change requires new learning. Kotter and Schlesinger (2008, p. 5) highlighted the significance of educating people about change “before-hand”. It is said that organizations respond more efficient in change when they are able to learn and/or unlearn (Azzone & Palermo, 2011). According to Armstrong (2006, p. 351) for a successful change it is required “to build a working environment that is conducive to change. This means developing a “learning organization”. By learning it is implied both knowledge and the ability to integrate this knowledge with skills at an individual and/or group level through a “sense-making” process in order perceptions and behaviours to change (Azzone & Palermo, 2011, p. 94). According to Kotter and Schlesinger (2008) people may be reluctant to change due to their fear regarding new skills and behaviour required for it. Indeed, the increase of people understanding and willingness towards change and organizational development is one of the main objectives of new learning and training. Well informed, with knowledge and equipped people, is a requirement for a successful change. On the other hand, people are guided to develop their own working methods, responsibility and empowerment through job-specific training. It is considered that both levels of education and skills impact people participation (Dunphy, 2000; Lanning, 1996). In summary, top management commitment and support in change must be in term of word and action. This means that top management must verbally support the change effort but also needs to act ensuring that resistance do not inhibit this effort (Sheard, 2001).

3.5.2.2 Step 2: Communicating change

The importance of effective communication as a vital element of successful change management is stressed by literature (Azzone & Palermo, 2011; Frahm & Brown, 2007; Kotter, 1995, 1996; Kotter & Schlesinger, 2008; Richie, 2002). It is said that “ultimately, the success and the sustainability of change efforts depend on how effectively the strategy for and the substance of change is communicated to those who are the targets of change” (Witherspoon & Wohlert, 1996, p. 378). Effective communication enhances the real power of planning, vision and goal setting processes (Kotter, 1996). Communication is considered as “the process by which information is exchanged and understood by two or more people, usually with the intent to motivate or influence behaviour” (Daft, 1997, p. 560). Indeed, the dissemination of a detailed and comprehensive plan of change, a common understanding of goals and consequently direction should be one of the main objectives of communication (Kotter, 1995). According to Kotter and Schlesinger (2008, p. 5) communicating ideas regarding change initiative contributes towards people understanding “the need for and the logic of a change”. It is a vital need for any organisations that undergo major change to provide effective communication since all the groups of actors involved require information for participating and assisting the desired change goals (Young & Post, 1993). This need concerns what is known as “changing psychological contract” between an organization and employees (Young & Post, 1993, p. 40). The goal of an effective communication is to communicate with and get people participating change efforts in order to “make the vision a reality” (Kotter, 2002, p. 5). A multitude of researchers have argued that the provision and availability of information to people involved in the process of change would ease resistance to change by avoiding

misunderstandings (Kotter, 1995, 1996; Kotter & Schlesinger, 2008; Lanning, 2006; Riches, 2002; Young & Post, 1993). Indeed, people may accept more easily and adapt faster to change when they are well informed about what is going to happen to them (Riches, 2002). Lanning (2006) supports that communication is about talking to people and persuading them to accept the change and act towards change. He also highlights the key role of an open, honest and abundant communication. This would prove vividly management's willingness to answer every question that would be raised on the issue of the planned changes. Also, trust between the various actors involved in the process of change is highly likely to be developed via the establishment of open communication (Lanning, 2006). According to Kotter and Schlesinger (2008) people may resist change when they do not clearly understand change implications often due to the lack of trust between the initiators of change and people affected by this initiative. Communication can become strong and effective as being simple and clear, through the employment of a formal plan and a plurality of means to communicate the desired change across all organizational levels and through both official and unofficial constant repetition (Kotter, 1996). The organisational actors need to be trained, informed and motivated through seminars and various informative sessions about the change process and goals and even more, the rationale supporting these. It is highly possible that these sessions may reveal problems and sources of resistance that may very well be attributed to the lack of an appropriate understanding of the process of change, so that management will be called upon to provide a remedy. Thus, the organisation-wide participation of all the actors, the provision of sufficient training, the establishment of appropriate communication and feedback may result in the cure of many complicated problems (McGuire, 2003). It is also necessary to assess communication especially during the

implementation and the planning phases of change (Klein, 1996). In summary, management of communication can prove a critical success factor in determining the success of change interventions since management change needs high levels of awareness, support, involvement and commitment in order to “start to take steps to make change happen” (Kotter, 2002, p. 5).

3.5.2.3 Step3: Encouraging participation

Many researchers have identified and concluded that an appropriate approach to overcome and cope with resistance to change is to encourage widespread participation by people involved in change at all organizational levels and during all the change process phases. This is due to the dissemination of important information, the feedback provided and the creation of a psychological sense of ownership (Fernandez & Rainey, 2002). Indeed, it is suggested that people need to feel that they are embedded in the change process as a part of it. This means that people need to be granted empowerment in terms of suggesting, implementing and deciding the steps to be followed (Deutsch, 2002). McGuire (2003) claimed that when planning carefully change the people involved can participate in all stages of the change process. Lanning (2006) suggested that by developing effective participation people affected by the change should be enabled and encouraged to actively participate in the planning and implementation phases of change. Kotter and Schlesinger (2008) suggested that change initiators should listen to people involved in change and use their ideas. It is suggested that empowering and voicing activities encourage people to share their ideas and thus activate their participation to change effort (UNPD, 2006). They should also be given the opportunity to move forward, uncover organisational deficiencies and develop future solutions.

Current problems of any organisation can be best understood and the development of modern and effective ways of operating could be enforced by people participation. Also, the encouragement of participation increases the utilisation of the expertise possessed by the organisation, so that it can commit the actors involved in the new ways of doing things and facilitate the new system's implementation (Lanning, 2006). It is suggested that empowering and voicing activities

In summary, top management commitment and support, as well as, communicating change are key drivers towards change and they constitute a powerful force for people participation to change. Sufficient resources are usually required to support the change process. These resources include the development of a strategic plan regarding the implementation of change, people training, establishment of supporting systems and the development of new processes and practices (Fernandez & Rainey, 2006). Indeed, investing in people's skills and capabilities by providing supporting resources and systems, people's willingness and participation in change may be achieved.

3.5.3 Phase C: Reproducing/ Institutionalizing Change

Reproducing phase implies a form of a behaviour that is constantly repeated and results in the reproduction of routines. According to Burns and Scapens (2000) conscious and/or unconscious change can be involved in the process of this reproduction. A choice is deemed as conscious and can take place only in the case that organisational actors manage to assemble the necessary resources that will enable them to put the existing routines and rules into question and/or doubt. Reproduction and in

turn institutionalization is considered as an element of change evaluation, such as the following statement:

“ . . . one key question in evaluating the changes revolves around the issue of reproduction. Do the changes become really incorporated into new routines and rules or are they simply “one-shot” interventions?” (Soin et al., 2002, p. 255)

Changes need to be institutionalized effectively at all organizational levels. Any innovations and/or new policies need to be embedded into the every day routines of people involved in change. Accordingly, actors' behaviour is subjected to change as it is involved in organisational changes. It is important from the employee perspective that these behaviours become routinized within the short term while they need to become institutionalized in the long term by the senior management for the purpose of replacing old patterns of behaviour (Fernandez & Rainey, 2006). Institutionalization of new behaviours is dependent on the socialisation of information to subordinates, the continued commitment and reinforcement in the behaviours of managers in the organisation, and the adaptation to environmental circumstances (Cummings & Worley, 1997). Moreover, it is suggested that organizational actors need to be provided with safe environments, with various types and schemes of rewards even for small achievements or else resilience may not be easily hampered (Kotter, 1998). According to Kotter and Cohen (2002, p. 7) evaluation and rewards are often the “stickiest problem” in today's change management process.

3.5.3.1 Step 1: Reinforcing new processes

Reinforcement of the new processes and behaviour respectively to change vision and goals implies the provision of a wider organizational base supporting them and rejecting old behaviour (Cummings & Worley, 1997). The promotion of results that are fast and tangible can be an appropriate example of maintaining people high motivation while still in the challenging development process of change reinforcing thus change effort. Actually, people involved in the process of change need to have prompt evidence of the new concept's usefulness perceived from a practical view basis (Lanning, 2001). Best practices and information related to them is not value unless they are embedded into new productive practices (Senge, 2003). Celebration of early successes is considered as motivating and reinforcing people's new behaviour (Mecca, 2004).

3.5.3.2 Step 2: Evaluating new processes

It is broadly discussed that adjustment and continuous checking needs to be made regarding the changes implemented and the change initiatives' success accordingly to the desired outcomes (Cummings & Worley, 1997; Fernandez & Rainey, 2006; Kotter, 1998; Kotter & Schlesinger, 2008; Lanning et al., 1998, Lanning, 2001; Mecca, 2004; UNPD, 2006). The measurement of the performance progress, the provision of feedback and the continuing adjustment and improvement are considered as being core elements of a successful and sustaining change (UNPD, 2006). Evaluating change process considers both the implementation and the outcomes of change (Cummings & Worley, 1997). Evaluating and monitoring change implementation means that people involved are continuously provided by ongoing change vision while they are continuously supported. Thus, the impact of change on people involved can be

diagnosed and corrective action to be taken (Mecca, 2004). According to Kotter and Schlesinger (2008) by continuously monitoring the change process unexpected things can be handled successfully with a timely reaction. It is also emphasized that collecting data, monitoring the implementation of change process as well as evaluating and monitoring continuously change efforts even when change implementation has already been completed is needed. This is to ensure that people behaviour and old practices are abandoned in their entirety (Fernandez & Rainey, 2006). Since change is by nature a continuous, never ending, learning process and/or often may become a failure process, people need to be encouraged and reinforced in experimenting, identifying possible results, assessing and reflecting on change aims and goals (UNPD, 2006).

3.5.3.3 Step 3: Rewarding

A critical element in the change process that needs not to be over sighted is to reward people according to their effort, achievement and contribution in moving change forward. It is linking the new behaviour required by change effort to rewards (Cummings & Worley, 1997). According to Armstrong (2006, p. 351) “The reward system should encourage innovation and recognize success in achieving change”. It is also supported that rewards may serve as an enabler to sustaining change by reinforcing new behaviour (Cummings & Worley, 1997). Lewin (1945) has advocated the promotion of goal establishment. Indeed, the process of change is very time consuming and time sensitive. Long-term goals and/or the lack of short-term wins may lead organizational actors to tiresome. Consequently, it affects their morale and gives rise to the risk of promoting further resistance to change. This makes imminent the setting of short term goals in order to keep momentum high and of some type of reward for the

actors involved (Kanter, 1993; Kotter, 1995). Reward is a kind of reinforcement of people performance. Lack of recognition and reward may imply complacency and it is considered as a factor of change failure (Kotter & Cohen, 2002; Ledez, 2008). Indeed, “without early wins that is visible, timely, unambiguous and meaningful, change efforts invariably run into serious problems” (Kotter & Cohen, 2002, p. 7). In order to enhance participation, employees need to be presented with some recognition relative to their achievements (Ledez, 2008; Sharma, 2008; Teare & Monk, 2002). The form of recognition needs to relate closely to the achievement and can possibly be provided in various and different forms such as monetary or non-monetary. Various studies have indicated that in some organizational environment non-monetary recognition is equally efficient, if not more, to monetary recognition (Ledez, 2008). It is also argued in favour of setting and providing incentives and various rewards since it helps boost the commitment and motivation of people and change success (Armstrong, 1993; Danish & Usman, 2010; Parish et al., 2008). Once the changes have been realized they need to be embedded into the culture of the organization making thus the reinforcement, possibly by rewards, of new behaviours imminent (Kotter, 1996).

In summary, the institutionalization of new behaviour according to the change effort can be empowered through reinforcement, evaluation and rewarding of the new processes during the change management process as well as after the desired outcomes have been achieved. Evaluating the change process and the results gained usually empowers the people involved by identifying the required behaviour (Kotter & Cohen, 2002).

3.6 Summary

This chapter aimed towards the development of a multi-approached theoretical framework that will facilitate the understanding of the research problem. It described and analytically explained a comprehensive and solid theoretical framework for gaining a deep understanding and explanation of the MA change process experienced within an organization. Further, it determined the key role of the external institutional and intra organizational dynamics that emerged affecting thus the change efforts and resulting in the implication of change. These dynamics which have or not been mobilized have affected the success of the MA change process in the Greek HEIs that were subjected to governmental pressures during the decade 1998-2008. The theoretical framework employed various institutional theory strands and perspectives on change management theories regarding change management processes that consider the ways in which MA practices can undergo change. Consequently, a hybrid institutional approach of MA change derived from the integration of various strands of institutional theory, such as OIE and NIS with change management theories.

SECTION B

(Research methodology and empirical investigation)

CHAPTER 4

RESEARCH METHODOLOGY AND METHODS

4.0 Introduction

The current chapter discusses the research methodology adopted for the scope of this study. The research philosophy and the research approach employed are unfolded and explained in the first sections as well as their operationalization in the current study. Following, this chapter focuses on the research design. More specifically, research strategy, research choices and time horizons are presented and analysed with respect to the research questions. Research quality issues are further discussed particularly while limitations and ethical implications are taken into consideration in the subsequent sections. Summarizing, it is suggested that an epistemology interpretive research approach is deemed as being the most appropriate one for the understanding of MA change in specific settings such as the Greek HEIs. A case study and a survey strategy are adopted through the use of mixed method choices i.e. quantitative and qualitative methods in order to inform the aims and objectives of this research.

4.1 Research methodology

According to Saunders et al. (2009) the terms ‘research method’ and ‘research methodology’ usually are used in an interchangeable way. In contrast to this view, they distinguish these terms. The authors claimed that “methodology” is related to the theory regarding how research should be carried out. This implies the theoretical approach and the research philosophy adopted for research purposes and it is related to the

development and nature of knowledge. It concerns researcher's assumptions regarding the way of viewing the world. The term "methods" is related to the data collection and analysis and the procedures and techniques used such as collecting data methods by using questionnaires, observations, interviews and analyzing data quantitative and/or qualitative techniques. The research philosophy assumptions apparently underline the research methods used with implications related to the research findings. Saunders et al. (2009) unfolded and analyzed the research process through the research "onion" layers (Figure 4.1).

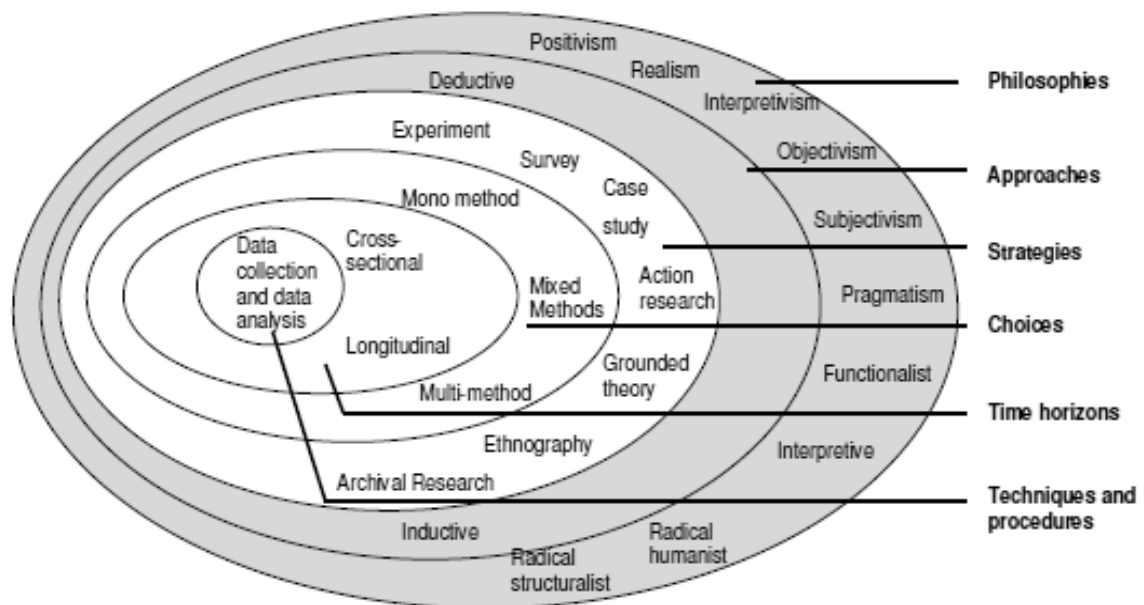


Figure 4.1: The research onion (Saunders et al., 2009, p. 138)

This chapter will be based on the research "onion" process (Saunders et al., 2009) while the adoption of the proposed research methodology is deemed as appropriate for purposes of the current research problem.

4.2 Research philosophy

Research philosophy is considered as a dominant term concerning the knowledge's development and nature (Saunders et al., 2009, 2012). It is claimed that failing to concern philosophical issues may affect the quality of research management (Easterby-Smith et al., 2008). Explaining the social world requires the proper balance between the statements made and methods used, with the applied philosophical approach employed to inform the methods (Abbott, 1998). According to Creswell (2003) a number of issues, such as ontological, epistemological and methodological issues, are related to philosophical perspectives. Ontological issues related to "being", that is the nature of organizational phenomena, epistemological issues related to "knowing", that is how researchers know the phenomena, and methodological issues related to "studying", that is the nature of ways concerning the study of those phenomena. Ruddock (2001, p. 27) stated that:

"ontology and epistemology are significant in that they illustrate how research begins by outlining theoretical suppositions that are taken as given by the research..... Observations, measurement and interpretation depend on the understanding of the ontological and epistemological nature of the work at hand".

Ontology is concerned with the nature of reality and the ontological position of research is considered to be the answer on the question of how the world operates and what is the nature of the social entities (Blaikie, 2000; Bryman & Bell, 2007; Easterby-Smith et al., 2008; Marsh & Stoker, 2002; Saunders et al., 2009, 2012). Its central question is whether social entities can, or should, be considered social constructions built-up from the perception and action of social actors. Saunders et al. (2009) highlighted that the

two aspects of ontology, namely objectivism and subjectivism, have their devotees among researchers in the business and management area. According to objectivism, in reality, social entities are independent and exist externally to social actors. Also, social phenomena confront social actors as external facts beyond their influence. In contrast, subjectivism supports that the perceptions and the deriving actions of the social actors lead to the creation of social phenomena that in turn are affected by and concerned with their existence (Bryman, 2001; Saunders et al., 2009, 2012). In any case, it is supported that these beliefs influence the epistemological assumptions related to the research (Moll, 2003).

The key question of epistemological perception is whether “can the approach to the study of the social world be the same as the approach to studying the natural sciences?” (Saunders et al., 2007, p.108). Epistemology is considered as “the possible ways of gaining knowledge of social reality, whatever it is understood to be. In short, claims about how what is assumed to exist can be known” (Blaikie, 2000, p. 8). It concerns of what is acceptable knowledge (Bryman & Bell, 2007; Easterby-Smith et al., 2008). They are considered to be the technical term of the theory of knowledge, to provide the philosophical underpinning which legitimises knowledge and to develop a solid framework for the development of a rigorous methodology. The most important distinctions in epistemology are those which consider data collected on “resources” and “facts” and those which consider the data collected by the “feelings” and “attitudes”. According to Saunders et al. (2009), the “resources and facts” researcher is embracing a positivist philosophy whereas the “feelings and attitudes” researcher is embracing an interpretive philosophy. Positivism is considered as a deterministic philosophy since it

views effects or outcomes to be determined probably by causes. Adopting positivism means that reality is considered as a “concrete structure” while people are “adapters, responders and information processors” (Hoque, 2006, p. 1). A positivist thinking is based on a cause-effect relation and on the development of hypotheses regarding specific variables’ relation. Thus, knowledge is based on real facts and derives from measurement, experiment and observation (Creswell, 2003). Positivist research searches for causal relationships and regularities in order to generalize findings and to create laws (Saunders et al., 2012). Positivism approach’s main objective is to create narrow hypotheses that can be tested so that theories to be tested and/or developed and findings to be generalized (Bryman & Bell, 2003; Creswell, 2003; Saunders et al., 2009, 2012). In the specific area of social and behavioural science, positivism is considered as

“an organised method for combining deductive logic with precise empirical observations of individual behaviour in order to discover and confirm asset of probabilistic causal laws that can be used to predict general patterns of human activity” (Neuman , 2006, p. 82).

Accordingly, data needs to be collected within the social environment involving people’s reactions while the behavior of people should be explained in terms of cause and effect (May, 2011). However, this view has been criticized. That is, due to the complexity of the world of business and management, it is not possible to be defined and theorised by “laws” that are definite in the same way as it is done in natural sciences. It is said that “rich insights” into the complex social world will be lost if “such complexity is reduced entirely to a series of law” such as generalizations (Saunders et. al, 2012, p. 137). From a different perspective, interpretivism places emphasis on the

understanding of differences that are noticeable between humans, considered them as social actors (Saunders et al., 2009, 2012). This research approach underlines the difference that exists when research is undertaken among people and focuses on human action rather than when it focuses on objects and/or natural phenomena. Adopting an interpretivist approach the challenge is to understand the phenomenon under investigation based on the social actors' point of view. This means that how shared behavioural patterns have been developed during time should be searched in a social group (Creswell, 2003). It is also broadly supported that an interpretive research approach should be the most appropriate for business and management research, particularly in searching organizational behaviour and human resource management (Saunders et al., 2012).

The current study is based on the view that the phenomenon of MA change is socially constructed and is also a social product of human interaction (Moll, 2003) adopting thus an ontology philosophy position based on a subjectivism approach. According to the epistemology philosophy an interpretive approach is supported as being an appropriate one for understanding the phenomenon of MA change and the social nature of accounting practices, focusing on making sense of the social nature of life on a daily basis (Ryan et al., 2002). It is supported that in using a positivist approach in accounting research little is known about accounting in real practice (Hoque, 2006). Appropriately these ontological and epistemological assumptions would suggest that a subjectivism and interpretive research philosophy is deemed as being the most appropriate one for the understanding the MA change in specific settings, such as the Greek HEIs.

4.3 Research approaches

It is claimed that the research approach's choice is determined by the chosen research philosophy and its demonstration could increase the research validity Creswell and Clark (2007). Accordingly, approaches to research have been identified into two main paths, the deductive and the inductive one. Inductive and deductive reasoning are considered as distinct logical and psychological processes attached to the research philosophies of interpretivism and positivism respectively. The deduction approach focuses on scientific principles and causal relationships between variables, moving from theory to data, on quantitative data and controls, operationalization of concepts, objectivity and sizable sampling (Saunders et al., 2009; 2012). Accordingly, natural sciences are considered as dominated by the deductive approach where "laws present the basis of explanation, allow the anticipation of phenomena, predict their occurrence and therefore permit them to be controlled" (Saunders et al., 2012, p. 145). This means that the investigation of causal relationships between specific variables is the beginning point for the deductive research which, in turn, leads to the development of hypothesis. Thus, used concepts need to be operationalized in such a way that would facilitate facts to be measured, mainly quantitatively. The collection of quantitative, and in some cases qualitative data, and the testing of hypothesis needs to be performed via the application of a strictly structured methodology which will facilitate findings being replicated (Gill & Johnson, 2010; Saunders et. al, 2012). By posing hypotheses and investigating relationships between specific variables, the positivist approach is based on the view that the research problem is better understood if it is reduced to the simplest possible elements. In summary, the key characteristics of a deductive approach in research is a

strictly structured methodology, the appropriate operationalization of used concepts, the principle of reductionism and the generalization of findings (Saunders et al., 2012).

As an alternative option has been suggested the inductive approach which supports that a theory is not necessary to pre-exist but can be developed during the study and the analysis of the data collected (Collis & Hussey, 2003). According to Saunders et al. (2012) the induction approach focuses on the understanding of the research context and the meaning of the way in which humans interpret the social events. It is also characterized by the flexibility of the choice of theory and the research structure as well as by the researcher's participation in the research process. According to Moll (2003) both deductive and inductive approaches have been criticized. Regarding the deductive approach it is argued that even though preordained theories are considered as being tested and thus more robust they are characterized by a limited ability to explain complex phenomena of social and behavioural science. On the other hand, it is claimed that a theory is a pre requirement in research studies and all theories are based on pre existing theories. Furthermore, without a solid theoretical basis incoherent theoretical frameworks are often developed with limited explanatory value (Moll, 2003).

4.3.1 The theory triangulation approach

The limitations that derive from the adoption either of an inductive approach, or of a preordained theory into a study may be overcome via the employment of multiple theories known as the approach of theory triangulation. A theory triangulation approach using different theoretical assumptions would be valuable as providing alternative interpretations and explanations of the same phenomena and empirical data (Berry et

al., 1991; Hopper & Hoque, 2006). According to Moll (2003) this view is based on the perception that the use of a single theory into a study results in the provision of a limited view and/or explanation of the organizational phenomenon under investigation. In contrast, the use of multiple theories into a study contributes to the development of a valuable framework based on the theoretical assumptions of the theories used and using data and evidence that derived during the study. This way, the view provided and/or explanation of the organizational phenomenon will resemble the data more closely (Moll, 2003). However, it is claimed that the major challenge in triangulation approach is the convergence of the findings analysis (Hopper & Hoque, 2006).

According to the current study, it is claimed that multiple theoretical perspectives and research methods used jointly allow for a better understanding and explanation of accounting change and procedures than would be provided by using a singular approach (Hopper & Hoque, 2006; Hoque, 2006; Moll, 2003). Indeed, the theory of triangulation has been used in a variety of accounting studies (Hoque, 2006; Moll, 2003). According to Hopper and Hoque (2006) in theoretical triangulation approach the integration of different theoretical perspectives into the study of the same phenomena in accounting enriches the understanding of everyday accounting practice.

Consequently, in this study, the triangulation theory approach is used as a core basis to build on the accepted ideological assumptions of various organisational and sociological theories such as institutional and change management theories in order to develop a multi-theoretical framework suited to the phenomenon under investigation. It is considered that a theoretical triangulation approach employing the OIE and NIS

theoretical perspectives complementary with change management theories, will offer greater explanatory power to the current study as opposed to the application of a preordained theory or to the building a new theory (Hopper & Hoque, 2006; Moll, 2003). It is also claimed that to better understand organisational response to external demands as well as the implementation of new mechanisms, the use of various theories and perspectives related to the research problem is suggested rather than the adoption of a general model (Csizmadia, 2006).

4.4 Research design

In the two sections above research philosophy and approach of the current study was unfolded with respect to the research problem. Following, it will be uncovered the next three layers of the research “onion” (Figure 4.1) focusing on the research design. Specifically, research strategy, research choices and time horizons will be presented and analysed turning thus the research question into a research project (Saunders et al., 2009, 2012). According to Saunders et al. (2012) the research design is an overall research plan of how the research questions will be answered. The key role of coherent research design in a study has been highlighted as providing clear objectives, specifying data collection resources and guidance on the collection and analysis of data and linking theory and research argument (Churchill, 1979; Nachmias & Nachmias, 2008; Ridenour & Newman, 2008; Saunders et al., 2011). Bryman and Bell (2007, p. 40) commented on the choice of the research design that “it reflects decisions about the priority being given to a range of dimensions of the research process” implying that influence will be exerted on following particular methodological procedures such as sampling.

4.4.1 Research strategy

In general, strategy is considered as “a plan of action to achieve a goal” and thus research strategy is defined as “a plan of how a researcher will go about answering her or his research question” (Saunders et al., 2012, p. 173). It is viewed as a methodological link between the research philosophy and the chosen methods of data collection and analysis. Research strategies are distinguished in eight different types: survey, case study, action research, grounded theory, ethnography, experiment, archival research and narrative inquiry (Saunders et al., 2012). However, it has been highlighted that the most important element in the research strategy are both ability and success in meeting the research objectives, and answering the relevant research questions; not the labelling of the adopted strategy (Saunders et al., 2009). This view is in the same line with Rowley's (2002) claim that the most important issue in determining the research strategy's appropriateness is the type of the research question. Rowley (2002) presented the various research strategies dependently to the kind of the research questions (Table 4.1).

Strategy	Form of research question
Experiment	How, why
Survey	How, what, where, how many, how much
Archival analysis	How, what, where, how many, how much
History	How, why
Case study	How, why

Table 4.1: Choosing a research strategy (adapted from Rowley, 2002, p. 17)

In this view, there is not superior or interior strategy. The choice of the employed strategy must be guided by issues such as the research philosophical assumptions, the particular research questions, objectives and the resources available and time of research (Saunders et al., 2009). It seems that research questions that seek an answer regarding ‘how’ and ‘why’ require a thorough investigation which can be facilitated and supported by a research strategy such as a case study. Who, what, where are questions that can be investigated through surveys (Rowley, 2002). Thus, respectfully to the research problem of the current study, these particular strategies such as case study and survey strategy will be paid attention in the following parts of this section.

4.4.1.1 The case study strategy

A research strategy that relies on a case study is a recommended one for purposes of studying contemporary and complex phenomena within their real life context or within various contexts (Eisenhardt & Graebner, 2007; Saunders et al., 2012; Yin, 2009). A case study strategy has been defined by Robson (2002, p. 178) as “a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence”. It is considered as a robust and comprehensive research that provides a thorough contextual understanding of the research and the enacted processes and facilitates in-depth investigation of practices, activities, events or individuals’ actions over time (Creswell, 2003; Easterby-Smith et al., 2008; Saunders et al., 2012; Yin, 2009; Zainal, 2007). Research that is exploratory and explanatory is often facilitated via the employment of a case study strategy (Saunders et al. 2012; Yin, 2009). Specifically, it is viewed as a prominent tool in research issues related to education, sociology and wider in studies

within the field of the social sciences (Zainal, 2007). It is considered as appropriate in analysing practical organizational situations, problems and processes with a particular emphasis in government and management research area, such as efficiency and effectiveness of particular government programmes (Zainal, 2007). In the specific area of MA research there is also broadly accepted the complementary use of a case study strategy based research (Modell, 2005; Ryan et al., 2002).

4.4.1.2 The survey strategy

According to Saunders et al. (2009) the survey strategy is commonly used in research areas, such as management and business. In the specific area of MA is also used aiming to explaining and testing theory, involving casual relationships among a set of variables (Tuan Mat, 2010). The survey strategy has been defined by Bryman (2001, p. 450) as:

“.... quantitative research which tends to bring out a static picture of social life... Survey was designed to provide information about the degree to which there was a consensus among members of the sample about certain circumstances.”

The assessment of information on a sizeable population can be carried out efficiently, rapidly and accurately at a low cost via the use of surveys (Creswell, 2003; Zikmund, 2003). Saunders et al. (2009, 2012) supported that large amounts of data concerning a large population size can be collected in an economical way and it is can also be perceived as comparatively easy to explain and to understand. It is considered that survey research design involves research in which data are collected and sought directly from a sample of respondents in natural settings. In addition, no independent variables can be manipulated by the researcher, the data collected can be used in both an analytic

and/or a descriptive manner and the research may range from the exploration of phenomena to the testing of hypothesis (Clara & Blair, 2005). The use of a survey strategy enhances the control of the research process and the generalization of findings that are representative of the whole population. This implies that attention should be paid in the representative sample, the collection instrument and the response rate (Saunders et al., 2012). It is also supported that five key elements should be concerned in any well-designed survey: its purpose and design, sampling and the definition of the population, questions explored by the survey, accuracy and validity of data, disclosure and reporting the findings (Van der Stede et al., 2007).

4.4.1.3 The current research strategy: A triangulation

A case study research strategy has been adopted for the scope of this enquiry. Similarly to Tolofari (2008, p. 25) who considered the Swedish university system as the “case” for studying the commodification of higher education in Sweden, the Greek higher education system is the “case” for the current study. Tolofari (2008, p. 25) also considered that the definition of a state education provided by Archer (1979, p. 54) was suited in the case of higher education system in Sweden as an appropriate one to be used for his study:

“a nationwide and differentiated collection of institutions devoted to formal education, whose overall control and supervision is at least partly governmental, and whose component parts and processes are related to one another” (quoted in Bray & Kai 2007, p. 126).

In the same vein, the Greek higher education system constitutes of the HEIs (universities and TEIs) that are strongly depended, supervised and controlled by the

Ministry of Education. It is worth noting that the statutory and legal regulations that govern with much detail the administrative structure and operationability of higher education in Greece have resulted in the creation of a number of institutions that constitute separate entities; at the same time they portray an explicit homogeneity in many vital aspects. Thus, it can be supported that they form parts of a uniform national system of tertiary education (Papadeas, 2008). In particular, they are related to one another regarding their aims, goals, government and management processes. Consequently, the Greek HEIs are concerned as a state education system and it will be the “case” under investigation for the scope of this study. Further, supporting the idea of the higher education system as being a case study Tolofari (2008) made reference to statements that claim that a case could be either a student or a national education policy or even an educational programme.

It is also supported that a case study represents a form of fieldwork which examines in depth and over time one or many organizations which are considered as a bounded and integrated system (Merriam, 2002). A case study focuses on with an intensive and holistic way and describes and analyzes a phenomenon that is considered as bounded or a social constructed unit such as an individual, an individual, a group of individuals, a programme, a system or an institution (Merriam, 2002). Furthermore, it is claimed that the dynamics within single settings could be understood by using a case study strategy. As it is mentioned, the current study’s research problem and the derived research questions concern the intra organizational dynamics such as institutional and change dynamics which influence the responses of the Greek HEIs to the external governmental pressures. Consequently, the strategy of the case study is considered to

be mostly appropriate for examining and explaining the research phenomenon and answering the research questions regarding the case of the Greek HEIs that are perceived as a single setting. Furthermore, as already has mentioned above, a case study strategy allows for a phenomenon to be investigated from various standpoints and over a period of time within its social context. In this vein, a case study approach has proved to be of crucial importance for the development of theories that explain MA change and accounting practices within organisations. In addition, Burns (2000) suggested the focusing on specific organisational settings, since it provides an opportunity to clarify and render understandable the various aspects of the MA change process.

Further, on the choice of the research strategy or strategies to be adopted, Saunders et al. (2012, p. 173) claimed that these should be considered as being “mutually inclusive” instead of exclusive. For instance, in a case study, a survey strategy can be possibly used as a sub part of it. This is triangulation that refers to the use of various methods of data collection. The triangulation between case study and survey research strategies has been considered as a means of the convergences and/or divergences degree’s assessment of the obtained findings. Respectfully to the above view, the survey strategy will be employed, as part of the case study research strategy. Firstly, the adopted survey strategy will facilitate answering the particular research questions and objectives “what” and “how”. Secondly, the triangulation of both case study and survey strategies will contribute to the holistic understanding of the research problem, with the survey focusing on the incidences that have been observed in the case study and the form and the strength of relationships, and the case study providing a deeper and richer

understanding of the survey findings (Moddel, 2005). Finally, Saunders et al. (2009) claimed that the choice of the research strategy to be employed depends on the available resources and the time of the research. The survey research strategy is very valuable when survey people who are widely distributed over a geographical area. In the present inquiry, the case study under investigation is the specific case of Greek HEIs and the research will be undertaken on a national level. This implies the necessity for a survey strategy given the amount and the geographical distribution of the participants, such as staff members of the Greek HEIs.

According to the time horizon, surveys include cross-sectional and longitudinal studies. A longitudinal research design require repeated surveys and the representation of phenomena and/or the study of people over a given period of time (Canava et al., 2001; Saunders et. al., 2012). This is a “diary” perspective. A cross-sectional survey is a “snapshot” perspective and is undertaken at a particular time (Saunders et al., 2012, p. 190). The current survey strategy has taken the form of a one time cross-sectional study. The rationale for this choice is that the current study was initiated in 2008 while its aim has been to investigate the changes during a period of ten years from 1998 to 2008. As a result, conducting repeated surveys at different points in time has not been feasible. Even more, the main objective of the current study is to measure variations between and amongst same group members (i.e. Greek HEIs) rather than to measure variations across time concerning a range of issues and/or factors (Groves et al., 2004).

4.5 Research design choices

Case study research strategy has been described by Yin (1994) as a “comprehensive research strategy”. This implies that a case study strategy is not a methodology for data collection and, depending on the variables, various methods of data collection may be used both qualitative and/or quantitative. According to Yin (2003), a case study constructs alternative interpretations until it is completely satisfied that the representation is a faithful account. This implies that, using multiple sources of evidence, a contemporary phenomenon within a dynamically changing real-life context can be thoroughly investigated (Yin, 1994). Using multiple sources of evidence, case study strategy enables understanding people behaviours and conditions through people’s perceptions and qualitatively analysis.

Indeed, it is through triangulation of data collection that case studies demonstrate their great strengths when compared to other methods, as data and evidence can be collected from multiple sources to support same facts and/or findings (Rowley, 2002). Data collection triangulation, according to Saunders et al. (2009, p. 146), “refers to the use of different data collection techniques within one study in order to ensure that the data are telling you what you think they are telling you”. For example, qualitative data collected using semi-structured group interviews may be a valuable way of triangulating quantitative data collected by other means, such as a questionnaire. In this vein, triangulation has been employed in the present research because it addresses all possible aspects of the topic, increases the amount of research data, and achieves a high degree of validity, credibility and research utility, while it overcomes the limitations of single-method studies (Bryman & Bell, 2003). Specifically, a mixed method approach

has been adopted for the scope of this study. Each of the data collection methods and analysis is presented and explained in a detailed manner, following thus the way in which they are interpreted and operationalized in the current inquiry.

4.5.1 Multiple methods choices

Regarding the choice of the research methods to be employed it can either be used a single (mono method) or multiple data collection techniques (multiple methods). A mono method study employs only one type of method of data collection and analysis, either a quantitative or a qualitative. A quantitative study utilizes numerical data that is collected through quantitative data collection techniques, such as questionnaires. Subsequently, it is then analyzed via the use of quantitative data analysis techniques. In a study that is of qualitative nature, information and data come in a textual form and is collected through a single qualitative data analysis procedure, such as in depth interviews, and analyzed employing qualitative data analysis techniques (Molina Azorin & Cameron, 2010; Saunders et al., 2009). On the other hand, in the case of a multiple methods study more than one methods of data collection and analysis are being put into use. Furthermore, multiple methods study can be classified into two paths. That is, the multi methods study in which multiple either qualitative and/or quantitative methods can be used and the mixed methods study, integrating quantitative and qualitative methods (Creswell & Plano Clark, 2007). Saunders et al. (2009) have claimed that there are four different possibilities-options of a combination of data collection and analysis techniques related to the multiple methods research design (Figure 4.2). The use of the term 'multi-method' indicates the use of more than a single technique for data collection and the associated techniques of data analysis. However,

this is confined within either a quantitative (a multi method quantitative study) or a qualitative (a multi method qualitative study) approach. The term mixed methods identifies the use of both quantitative and qualitative techniques of data collection and analysis techniques utilized in a research design.

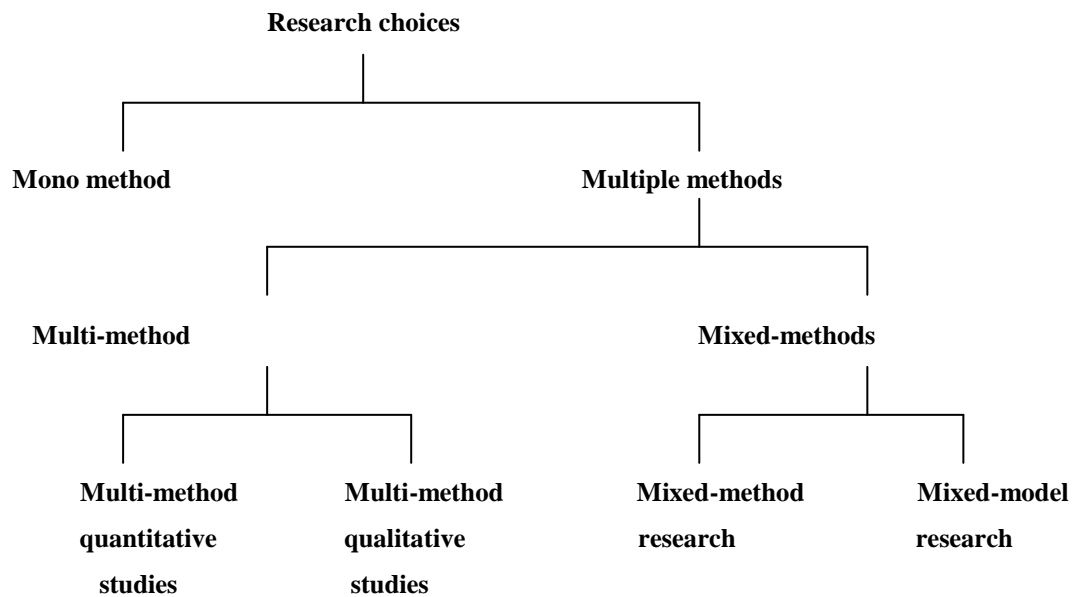


Figure 4.2: Research choices (Saunders et al., 2009, p. 152).

However, in an effort to distinguish between mono and multiple research methods it will be helpful to develop an understanding of what is known as mixed methods. Mixed methods have also been defined by Tashakkori and Creswell (2007, p. 4) as:

“research in which the investigator collects and analyzes data, integrates the findings, and draws inferences using both qualitative and quantitative approaches and methods in a single study or program of inquiry”.

The popularity of the mixed research methods has been growing over time in various scientific fields such as sociology, education and health sciences as an outgrowth of the

“triangulation of methods” movement (Bryman, 2012; Harwell, 2011; Johnson et al., 2007; Molina Azorin & Cameron, 2010; Tashakkori & Creswell, 2007; Teddlie & Tashakkori, 2008). Mixed methods research is considered as an emerging method “which combines qualitative and quantitative methods in ways that ostensibly bridge their differences in the service of addressing a research question” (Harwell, 2011, p. 151) and its foundations on philosophy and methodology date back to the early 1990s. There is an extensive discussion regarding the use of mixed research methods. It is stated that research questions regarding complex phenomena, can best be addressed by using a mixed methods approach and by combining equally qualitative and quantitative methods of data collection and analysis (Creswell & Plano Clark, 2007; Johnson & Onwuegbuzie, 2004; Molina Azorin & Cameron, 2010). Furthermore, mixed methods research allows for insights that would not be possible realized by the use of either mono method. This is feasible, as through the collection of data of multiple kinds, it reflects strengths that are complementary and weaknesses that are not overlapping with each other (Johnson & Turner, 2003). From another point of view, the research via the use of mixed methods provides the “opportunity to compensate for inherent method weaknesses, capitalize on inherent method strengths, and offset inevitable method biases” (Greene, 2007, p. xiii). Johnson and Onwuegbuzie (2004. p. 18) claimed that

“It is an expansive and creative form of research, not a limiting form of research. It is inclusive, pluralistic, and complementary, and it suggests that researchers take an eclectic approach to method selection and the thinking about and conduct of research”.

Creswell and Plano Clark (2007) posted that the research that involves the employment of mixed methods reflects an opening for many quantitative researchers to use

qualitative data. This implies that the matter is not a conflict between less quantitative and more qualitative research. Rather, it implies that research practices lie somewhere on a continuum between qualitative and quantitative methods (Creswell, 2003).

Furthermore, additional issues in using mixed methods have been broadly discussed, such as complementarity, completeness and corroboration/confirmation. It is stated that when a combination of mixed methods is applied, these complement each other allowing thus for a more comprehensive analysis (Creswell, 2002). According to completeness Tashakkori and Teddlie (2008, p. 102) claimed that “Mixed methods designs are utilized in order to make sure a complete picture of the phenomenon is obtained. The full picture is more meaningful than each of the components individually”. Also, Currall and Towler (2003) contended that when qualitative and quantitative methods are used in combination, they harmonize with each other and lay the ground for an analysis that will be more complete. At the same time, Tashakkori and Teddlie (2008, p. 103) stated that “unexpected or ambiguous results from a quantitative study might necessitate the collection and analysis of in-depth qualitative data in a new strand of the study” implying the corroboration/confirmation reason. Eisenhardt (2004) also highlighted that quantitative methods can support findings when these are verified from qualitative evidence. It is broadly accepted that corroboration/confirmation and comprehension of findings are considered as two ‘broad aims’ in the use of mixed methods (Dunning et al., 2008). Confirmation has been broadly defined as the bridging of findings that derive from two different sets of data. Further, comprehension concerns the different research approach combination in order a more deep and comprehensive understanding of the investigated phenomenon to

be accelerated (Dunning et al., 2008; Morse 2003). In the same vein with Mitchell (1986), Dunning et al. (2008, p. 147) have underlined the relation of both goals by demonstrating the non mutual exclusiveness of these two concepts based on Mitchell's (1986, p. 22) diagram (Figure 4.3).

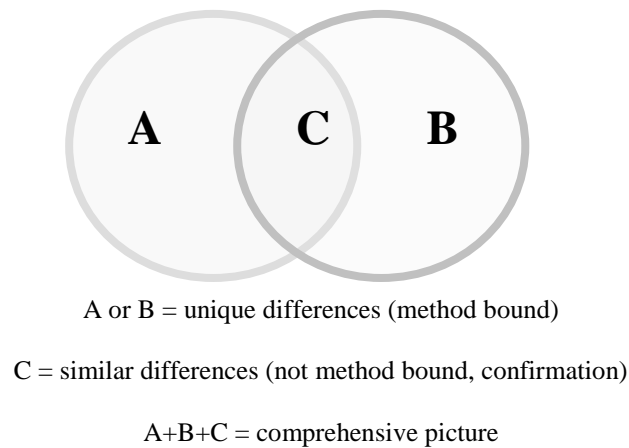


Figure 4.3: Confirmation and comprehension: Related concepts (adapted from Dunning et al., 2008, p. 148).

According to Harwell (2011) and Bryman (2011) although mixed methods research has been widely accepted and popular, it is not widely agreed what exactly constitutes a mixed research methods study. Literature contains numerous mixed methods frameworks, which although differ with each other, they still manage to succeed in conveying to researchers a sense of availability on a large number of methodological tools. Some authors claim that using both quantitative and qualitative methods of data collection and analysis should be considered as a mixed methods study. Opponents of this view claim that research question on a mixed method approach, both qualitative and quantitative data collection and analysis, as well as, integration of the findings are the key characteristics of a mixed methods approach (Harwell, 2011). Extent discussion concerns priority, implementation and integration that constitute aspects of mixed methods research (Creswell et al., 2003; Bryman, 2011). Firstly, in a research study, the

aspect of priority refers to the weight given to each one of the quantitative or the qualitative approach. Secondly, the aspect of implementation refers to the collection process of quantitative and/or qualitative data collection and analysis and whether it occurs in a sequential manner (chronological order) or concurrently (gathered at the same time, in parallel). Thirdly, the aspect of integration refers to the connection and interpretation of findings derived from the qualitative and quantitative data. Disagreement has also arisen regarding the stage within the study that the mixing and interpretation of inferences should occur (i.e. during the design stage or collection of data or analyses of data or interpretation of data). Furthermore, Creswell (2003) discussed about the sequential or parallel collection of qualitative and quantitative data, about the allocated weight on each one type of data, the phase of the mixing of findings and the extent to which a theoretical perspective is present and guides the research design. According to Saunders et al. (2009) in mixed methods approach there are two different choices (Figure, 4.2, p. 154). A mixed model research combines quantitative and qualitative approaches at research phases, such as the generation of the research questions. This clearly implies that numerical data can be analysed qualitatively through the conversion into text and vice versa qualitative data can be analysed quantitatively through its conversion into numbers. On the other hand, mixed method research utilizes data collection techniques and procedures of analysis in a parallel or in a sequential manner without combining those. This indicates that, quantitative and qualitative data are analysed quantitatively and qualitative respectively.

4.5.2 The rationale for a mixed-method research

The current study was designed in such a way as to take advantage of the benefits of both the qualitative and quantitative research. It is suggested that mixed research methods (quantitative and qualitative) complement each other and thus a combination of them can prove successful (Amaratunga et al., 2002). According to Denzin (2001, p. 327) “blending qualitative and quantitative methods of research can produce a final product which can highlight the significant contributions of both”. A mixed-method research choice has been employed as the most appropriate research method in the present research study via the use of both quantitative and qualitative techniques of data collection and analysis. Mixed methods research is realising an increasing popularity in various scientific fields (i.e. sociology, education and health sciences). Numerous researchers from these fields have advocated the use and integration of qualitative and quantitative research methods as well as in management and organizational studies (Bryman, 2011; Molina Azorin & Cameron, 2010). In particular, it is suggested that when researchers from the fields of organizational management used a combination of mixed research methods to investigate organizational phenomena, their research yielded greater information than could be achieved through a single method increasing thus the range of investigation and enhancing the understanding of the phenomena (Bryman, 2011). It is also supported that mixed methods are deemed as appropriate in cases where the research questions aim to facilitate the investigation of phenomena of certain dynamic (i.e. innovation and change) (Curall & Towler, 2003).

The current study investigates the intra organizational dynamics of the accounting change that unfolded within the Greek HEIs during the decade 1998-2008 under the

governmental pressures for accounting reform. Thus, accounting change is related to organization's interaction with its institutional environment. This kind of interaction is not considered as being simple but rather complex since both the institutional and organizational contexts interact and these interactions can vary from being simple to being inextricably linked (Ryan et al., 2002). Thus, MA change within the context of the Greek HEIs is a complex phenomenon and needs to be analysed both at the macro- and the micro- level. The complexity of the phenomena under investigation implied the need for a mixed method approach in order to best cope with the research problem. The rationale for this approach is that the use of only one (regardless of which one) out of the two methods is not capable of capturing the complex phenomenon of MA change in the Greek HEIs.

Given that none of the discussed mixed methods frameworks has been widely adopted (Harwell, 2011) providing thus a clear structure to be drawn, the current study has adopted a mixed method research approach aiming to corroborating/confirming and comprehension of the research findings. The data collection design has been based on the use of a combination of qualitative and quantitative methods. Both methods complemented each other and allowed for a more complete analysis. At the same time, quantitative and qualitative methods of analysis, even in combining them in the same stage or data, have been used in order to corroborate/confirm the research findings. Finally, the integration phase has been developed extensively mixing and connecting the research findings of each research stage. The importance of an effective integration of the analysis results has been highlighted by Teddlie and Tashakkori (2009). Overall findings of the entire research, derived from the mixed method research approach, have

been integrated and harmonized in order to be corroborated/confirmed and allow for a complete and more comprehensive understanding of the investigated phenomenon (Chapter 8). During the research stages the research questions have been answered respectively to the research findings. An overview of the research design choices with respect to the research questions is presented in table (Table 4.2) as shown below:

Strategy Research question	Document analysis	Survey 1	Survey 2	Interviews	Integration
<i>To what extent did government exert pressures on the Greek HEIs to change their existing MA system, for example to implement the accrual accounting system?</i>	X	X	X	X	X
<i>To what extent did Greek HEIs respond to the isomorphic pressures to change their existing MA system, for example to implement the accrual accounting system?</i>	X	X	X		X
<i>How did intra organizational dynamics such as institutional dynamics and change dynamics influence the accrual accounting system implementation?</i>			X	X	X
<i>To what extent did intra organizational dynamics result in using new routines of accrual accounting system within Greek HEIs?</i>			X	X	X
<i>How the empirical findings provided by the extensive investigation of the research problem in the Greek higher education sector support the theoretical considerations implied by the employed theoretical framework in this study?</i>					X

Table 4.2: Research design choices respectively to the research questions (Author's own).

In particular, this study has adopted a sequential mixed method design collecting quantitative and qualitative data separately at three distinct phases during the period of

2008-2009 (Figure 4.4). Each empirical study as well as document analysis was designed in such a way in order to complete and confirm/corroborate the results with the others. This has been gained with the integration and harmonization of the overall findings providing thus a deep and comprehensive understanding of the overall research problem and the phenomenon under investigation. The design and the data collection of each quantitative and qualitative method used in the mixed research approach are presented and explained analytically below (Figure 4.4).

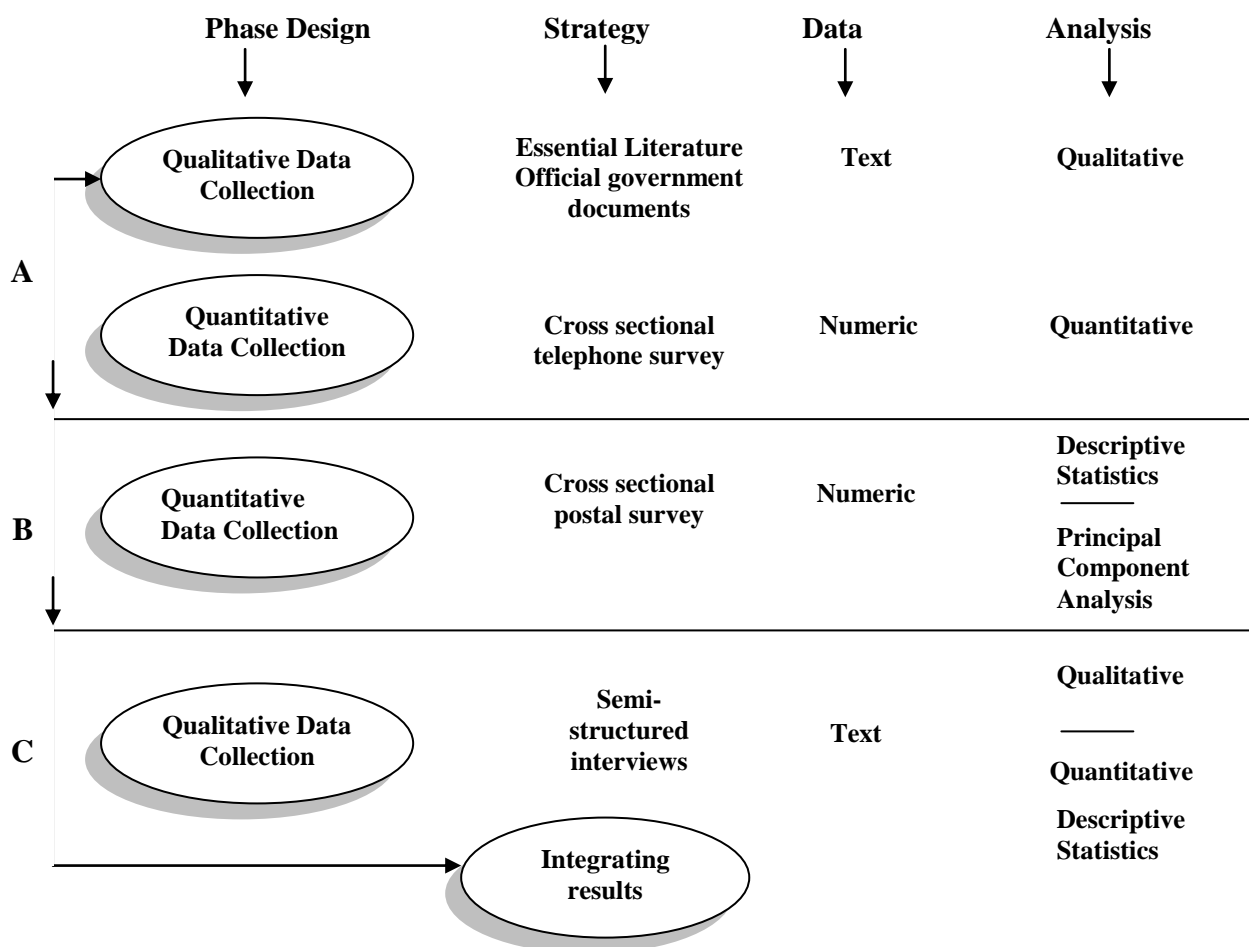


Figure 4.4: Sequential Mixed Method Research Design (Author's own).

4.5.2.1 Phase A: A Document analysis and survey

It is claimed that a documentary analysis is an appropriate for recording activities that could not been observed in a direct way (Tolofari, 2008). The nature of the current study obliges a document data collection and analysis since it regards a past period of time such as the decade of 1998-2008. An unlimited variety of documents can be used in providing valuable qualitative and quantitative data while literature is possible to enrich knowledge of the research themes (Bryman & Bell, 2007; Creswell, 2005; Punch, 2000). Punch (2000, p.43) has written:

“Literature is an extremely valuable resource, and an important storehouse of knowledge and thinking about a topic or area. It includes previous research reports and their findings, theorising and reflections about the area”.

In this vein, given the focus of the current research, a thorough study of the literature and official government documents specifically related to the accounting reform of higher education in Greece has been required (Chapter 5). Official documents have also been constituted a major repository for the current research phase while the analysis of the data collected provided important findings related to the macro- level institutional forces exerted on the Greek HEIs. Another reason for the adoption of this type of document is the level of the current research. This research was unfolded in a national level and it concerned the Greek higher education system and the Greek higher education as its components. For this reason, the access to relevant with the research interest documents regarding each individual HEI and their examination and analysis has been considered as being unrealistic for this study. Thus, in phase A, data collected in the form of text (qualitative) has been analyzed qualitatively. At the same phase,

numeric data collected (quantitative) has been analyzed quantitatively in order to corroborate/confirm the qualitative results obtained. In particular, the number of HEIs that fully implemented the accrual basis accounting system ten years after the voting of the P.D. 205/1998 has been investigated. The investigation has been conducted by a telephone survey asking for the implementation of the accrual accounting system in HEIs. During the survey the Directors of financial departments were asked to answer whether their institution has put in action the use of the accrual accounting system in terms of accrual financial accounting and cost accounting full implementation. Moreover, based on the derived findings the survey structured questionnaire has designed reflecting the research questions arisen from them.

4.5.2.2 Phase B: A structured questionnaire survey

With respect to the survey strategy approach a structured questionnaire was used for the data collection in phase B following the literature analysis (Chapter 6). Specifically in the second phase, a structured questionnaire that was self-administered and self-ratings was developed for data collection purposes. It is stated that structured interviews and/or questionnaires are being employed by surveys including either longitudinal or cross-sectional studies (Babbie, 1990). In addition, this technique of data collection is very common for organizational studies and management. For the scope of the current study, a structured questionnaire was deemed as the most appropriate technique to be used for collecting information related to organizational and managerial structures that facilitated or hinder the MA change processes in the Greek HEIs. It is considered that the structured questionnaire has many advantages, such as allowing a broad coverage, reaching easily respondents, using efficiently time, costing lower, providing alternative

choices to respondents and not allowing answers to be impacted by the researcher (Sarantakos, 2005). Structured questionnaires are reliable with fewer error resources and can be easily analyzed and processed via the use of statistical software packages. Finally, providing the same questions to all respondents, answers can be classified easier. However, a major disadvantage associated with the use of questionnaires is the elicitation of an appropriate response rate.

Surveys can be undertaken via face-to face interviews, by the telephone and by mail or through a combination of two or more of these types. In his study, Tuan Mat (2010) provided evidence from literature that supports the benefit of using a mail survey method. Indeed, it is supported that a large sample can be obtained conducting survey by mail; it also incurs low cost, reduces errors in sampling and minimizes the phenomenon of interviewer bias compared to the other types of survey. It is also suggested that among the benefits of utilizing this method is the freedom of the respondent to reply when convenient, the provision of anonymity and the opportunity given to them to reply and express themselves in an open and sincere manner. Thus, there is a potential for the results to bear a higher degree of validity and reliability. It is also expected to survey larger samples over shorter time periods. However, Tuan Mat (2010) mentioned the disadvantage of the mail survey method; that is the non response error defined as the statistical difference between surveys. The difference is that one survey may include only the actual respondents while another one may include the actual respondents and the also non-respondents. Regarding the response rate it is argued that it increases relative to the level of education and the participants' interesting for the survey topic. In cases where a mail survey is applied, a return rate of

approximately 30 percent is deemed as a satisfactory outcome. In the specific MA research area, a 25 percent or even a smaller response rate is very common. Finally, Tuan Mat's (2010) arguments presented above provided reasonable justification for the use of an extended structured administered questionnaire via mail in the current study.

Regarding the type of questions, the most commonly used is the open-ended ones that provide a high degree of freedom to the respondent and the closed ones that allow respondents to choose among preset alternatives. The survey in the current research utilized a structured questionnaire with close-ended questions. A major advantage of such close-ended questions is that they can be quickly and consistently answered by the participants (DeVaus, 1996). As for the current study, questions and statements have followed a closed format with multiple choices such as binary choices (e.g. yes or no) or a Likert type scale. The use of the Likert type scale allowed the answers to follow a five-step scale ranging from 'strongly disagree' to 'strongly agree'. The scaling of the responses lead to an increase in the variability of responses received per question (Zikmund, 2003). Furthermore, it provided the respondents with convenience in answering the questionnaire and the researcher with an aggregate set of indicators that made the administering of the responses an easier process. The numeric data collected by surveying the attitudes of Heads of financial departments on the attempted MA change has been analyzed quantitatively providing information about the key role of dynamics under investigation. In addition, findings of data collected have been analyzed providing evidence of the extent of the accrual accounting daily practices implemented in each individual Greek HEI.

4.5.2.3 Phase C: Semi-structured interviews

The interview with the financial departments' Directors of the Greek HEIs has been employed in the final phase of the current research (Chapter 7). The definition provided for the term "interview" is of being a special form of conversation aiming to the generation of knowledge through the views interchange in people's interaction (Tolofari, 2008). The interview is also characterized by flexibility as it is self-adjusted to changes while still in the progress of data collection. In a flexible form, the questions can be modified in terms of structure, sequence and elucidated, by the interviewer. Further, the interviewee is prompted and probed by the interviewer and corrections and revisions on statements can be made at any time during the interview (Tolofari, 2008). More over, it is claimed that truth is sought in great depth via the method of the interview as information of greater depth is gathered given that it is more sensitive to variations in meaning of the context (Phellas et al., 2012). For purposes of the change process, the interview as a method of data collection is considered as an appropriate means to accomplish the goal of exploration of the lived experience of individuals involved in a change process such as the attempted accounting reform in the Greek HEIs.

Interviews are categorized into categories such as structured, semi-structured, unstructured, focused, group, oral, in depth, qualitative, intensive and focused (Bryman & Bell, 2003; Saunders et al., 2009). A semi-structured questionnaire was used for interviews that were undertaken. Semi structured interviews are broadly considered as a strong qualitative research approach due to many reasons such as high response rate, decreased complexity through probe questions and benefit from their flexibility

(Williamson, 2002). With the use of the semi-structured interview, the researcher is provided with more flexibility and opportunities to explore in more depth thoughts and attitudes of any issue under examination by those involved into decision making and policy implementation. In addition, the researcher is enabled to gain a much better understanding of any documentary evidence being provided. It is also claimed that a well structured questionnaire can be easily analyzed, given the fact that the response categories in a well structured questionnaire are usually known (Bell, 1999; Cohen et al., 2002). In semi-structured interviews a list of themes are covered while qualitative data gathered can be coded into categories to statistically analyzed (Phellas et al., 2012). Thus, in the current research, the semi-structured interviews have taken place in order to provide further insights and supplement the findings from this study. The semi-structured interviews aimed in obtaining information on accounting change from those actually involved in this process. Experience and depth of knowledge on accounting change (e.g. the implementation of the accrual basis accounting system in their organisations) were the key factors that determined the choice of the interviewees. Even though the cost associated with, semi-structured interviews were undertaken face-to-face with the participants. The advantages of face-to-face interviews have been identified in terms of the ability of explaining questions, if it is required from the interviewee, the ability of being longer than self-administrative data collection methods, the ability of being visually aided, the ability of interviewer to control the environment and appropriate setting of interview (Phellas et al., 2012). The collected data was analysed using both qualitative and quantitative methods providing results corroborated/confirmed by the use of mixed method analysis. In particular, the findings derived from the previous phases of this study based on content and a survey structured

questionnaire analysis compared and contrasted or supported by the perspectives of the attempted accounting change through the eyes of various individuals (Denzin, 2001). In the following sections, a detailed description of the activities that are related to the design and development of the research instruments will be provided.

4.6 Research design quality: Reliability and Validity

The research findings' credibility underpins the discussion of the research design and the related issue of its quality (Saunders et al., 2011). According to Yin (1994), essential criteria about the design of any research are assisted by validity and reliability. However, the use of the criteria of validity and reliability has been questioned mainly by qualitative researchers. In response, some continued to use the traditional terms of validity and reliability in qualitative research while some others formulated new terms respectively such as credibility and transferability instead of validity and dependability instead of reliability (Saunders et al., 2012). Independently of the label used, validity and reliability are key criteria for assessing the research quality either in qualitative or quantitative research studies and they are concerned with the question of whether is measured, what is thought is measured and whether the conclusions are consistent. In particular, in mixed methods research design one of the most frequently discussed criteria regarding the quality of research design is the integration of findings derived from both quantitative and qualitative analysis (Bryman, 2011; Creswell & Tashakkori, 2007). The following section describes the measures taken in the current study in order to assist both the reliability and validity of the research design.

4.6.1 Data Triangulation and Methodological Triangulation

It is argued that in research, triangulation is best described as the bridging and the combination of multiple sources of data, of methods and perspectives in the study of a single phenomenon to confirm the conclusions derived from the data and create a single construct. Further, it is highlighted that is valuable as a strong means of ensuring rigor according to researchers who have been involved with mixed methods research (Yu, 2004). Triangulation is concerned with the use of different techniques of data collection in any single study and according to Saunders et al. (2009, p. 146) “it ensures that the data are telling you what you think they are telling you”. Yin (1994) argued that, in the case of the data collection process, triangulation is realized when data is collected from numerous sources. These sources can very well be actors from different participant levels within the research setting. According to the number of data collection sources this study has employed different sources, such as literature and official documents regarding the Greek higher education sector and the attempted accounting reform. Also, participants from different levels within the Greek HEIs have been extensively employed. In particular, Heads and Directors of the financial departments of the Greek HEIs have been surveyed or interviewed through a structured or a semi structured questionnaire respectively. Regarding the data collection process, multiple methods have been used such as an initial literature review and official document providing valuable content data, a sequential quantitative survey providing descriptive numerical data as well as a structured questionnaire survey providing quantitative data and finally, interviews providing appropriate data to be analyzed qualitatively and quantitatively. The results of the literature content analysis proved very useful in the development of the questionnaire which was administered in the survey process (empirical study). The

results extracted from the survey study were then utilized in the process of informing the semi-structured questionnaire used in interviews. Finally, in the interpretation phase, the findings resulted from each inquiry phase were integrated in order to be confirmed and corroborated in a smooth way. Consequently, data triangulation has been evidenced at each level of the inquiry process. More specifically, the evidence used was in multiple forms and derived from diverse sources. Thus, it is clear that this process assisted in the establishment of construct validity and the reliability of the current research, as it clearly followed Yin's (1994) principles for the collection of data.

4.6.2 Validity

According to Saunders et al. (2009), validity is concerned with whether the findings that appear as a result of the research are real. As it derives from the research literature qualitative researchers have utilized eight strategies concerning validity namely: prolonged engagement and persistent observation in the field, triangulation, debriefing, refinement of hypotheses as the inquiry advances, clarification of researcher bias from the outset of the study, solicitation of the views of the participants regarding the credibility of the findings and interpretations, rich and thick description and assessment from external audits' (Creswell, 2007). Further, the author (Creswell, 2007) suggested that at least two of the above strategies be employed. As it has already been mentioned, the strategy of triangulation strategy has been employed for validity purposes in the current study. Furthermore, the researcher was fortunate enough since his supervisors were keen on checking and discussing the results with him. Finally, quantitative and qualitative data collection and analysis is analytically presented and explained by using both quantitative and qualitative techniques.

4.6.3 Reliability

The replication of results by other researchers who investigate a similar topic with the use of similar procedures increases reliability (Yin, 1994). Reliability is associated very closely with the techniques used for the data collection and analysis gaining thus consistent findings (Saunders et al., 2009). This implies the need for strong documentation of the research process and evidence of linking the conclusions and findings. In the current research, an analytical and detailed presentation and explanation regarding the research design and process has been attended. The research design was strongly related to the literature relative to methodological issues in social and organizational studies and the investigation of complex social phenomena such as the MA change in particular settings. Furthermore, the research methods of data collection and analysis that have been employed for the scope of this study have been presented in details. Finally, the following chapters describe in detail and report the findings and results derived in each phase of the research. Appendices also present the structure of the questionnaire employed in the survey and the interview schedule, as well as, the semi structured questionnaire. In the final chapter, an overall analysis of the entire research is developed by presenting, integrating and harmonizing the results in order to be corroborated/confirmed and allow for a complete and more comprehensive understanding of the investigated phenomenon.

4.7 Research Methodology issues: Weaknesses and strengths

It is inevitable that during the process of adopting any research methodology, limitations will exist and some of them are out of the researcher's control. However, all methodological issues should be discussed not only in terms of their limitations but also

by considering the strengths that have been designed and created in order for the impact of the limitations to be minimized. In this vein, both weaknesses and strengths of the research methodology and methods applied for the scope of this study are presented in the following table (Table 4.3).

Methodological issues	Weakness	Strength
Theory	Use of predominant theory	<ul style="list-style-type: none"> • Triangulation of theories • Development of a solid theoretical framework
Research strategy	Disadvantages of case study and survey research strategies	Triangulation of research strategies
Context	Public HEIs in Greece	<ul style="list-style-type: none"> • Multiple restrictions • High resistance
Data collection and analysis	Disadvantages of quantitative and qualitative data collection and analysis	Triangulation of data collection and analysis (Mixed Methods)
Sample	Limited sample	Expertise and experienced in MA change in the Greek HEIs

Table 4.3: Research methodology issues: weakness and strength (Author's own).

All the above limitations are discussed and thoroughly explained throughout the various stages presented in this thesis as well as the rationale upon which the research methodology choices and decisions have been undertaken. Further, explanations are provided regarding the alternatives and measures that have been considered in order for these limitations not to affect the scientific value of the current research.

4.8 Ethical considerations

The ethical issues that arise across the duration of any research according to Saunders et al. (2009, pp. 185-186) are shown in the list below as follows:

- Assurance of the participants' privacy
- The voluntary nature of the participants' involvement
- The right to withdraw at any point in time of the research process either partially or in full
- Informed consent and avoidance of the respondents' deception
- Maintenance of data confidentiality and anonymity of the participants involved in the research process
- Participants' reactions to the data collection process and the way it is carried out by the researcher
- The effects of the way(s) in which data is analysed and reported on the participants
- The researcher's objectivity and integrity of behaviour

In the current study, all the above issues regarding participants' human rights have been concerned alike by making appropriate reference within the cover letter sent as well as by the appropriate behaviour of the researcher during the research process. In particular, anonymity and privatization of the participants as well as confidentiality of the data have been secured. Also, the cover letter sent asked for a voluntary participation and explained the scope of the current study. Participants' views and

perceptions were fully respected and paid attention by the researcher during the interview process and no harm has been caused to the participants at any case.

4.9 Summary

The methodology of the research undertaken has been outlined in this chapter which has mainly been based on the research “onion” (Saunders et al., 2009). In the current chapter, many issues that would determine the methodological statement of this study have been thoroughly discussed and it has been explicated and grounded the research approach that has been utilised. Therefore, it has been suggested that the adoption of a subjectivism interpretive philosophy in this enquiry is the most appropriate for understanding how MA change is exercised in the Greek HEIs. In this regard, a case study research strategy has been adopted for the scope of this study including an in part survey strategy. The Greek higher education system and the HEIs as its components are considered to be the case study under investigation. The complexity of the phenomena under investigation implied the need for a sequential mixed method approach in order to best understand and explain the phenomenon under investigation. Finally, the data collection and analysis methods chosen as the most appropriate were analytically presented. Consequently, Saunders’ et al. (2009) research “onion” which was adapted for the scope of the current research, presented following, demonstrates the methodology adopted (Figure 4.5). Research design quality issues have also been discussed and the limitations and strengths of the current study have also been presented. Finally, research ethical issues arisen have been considered as they secure participants’ human rights in each research study.

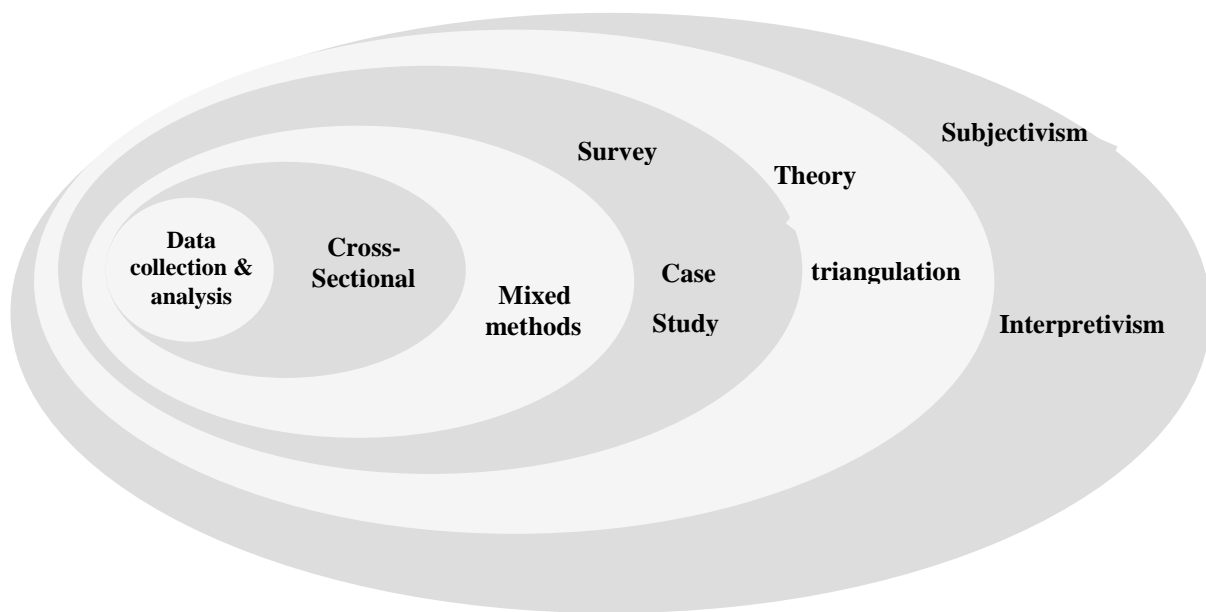


Figure 4.5: Current research “onion” (adapted from Saunders et al., 2009, p. 138).

Following, the findings of each phase of the research will be discussed in sequence in the next three chapters (Chapters 5, 6 and 7) while the integration and harmonization of the results will be presented in the final chapter of this thesis (Chapter 8).

CHAPTER 5

The case of Greek Higher Education

5.0 Introduction

The current study focuses on providing an answer to the question of how HEIs in Greece responded to governmental pressures for accounting reform during the decade of 1998-2008; specifically, it focuses on the extent to which HEIs implement the accrual accounting system and the influence of the isomorphic and intra organizational dynamics on its implementation. The aim of this enquiry is to assist in providing a deep understanding of the external and internal dynamics that influence the adoption and implementation of the MA systems, resulting thus, to new daily accounting practices within certain organizations. The current study is not limited in researching the various ways in which the Greek HEIs cope with the management of the change pressures but also aims towards studying the effect of the internal and external institutional environment within which organizations operate. This institutional environment exerts influence on the behavior of the organizations with regard to change. In particular, the aim of the current chapter is to answer the following research questions:

- 1. To what extent did government exert pressures on the Greek HEIs to change their existing MA system, for example to implement the accrual accounting system?*
- 2. To what extent did Greek HEIs respond to the isomorphic pressures to change their existing MA system, for example to implement the accrual accounting system?*

Therefore, this chapter seeks to present the structure and layout of the Greek higher education system and to investigate the external environment in which the Greek HEIs operated during the decade 1998-2008. In turn, this chapter will reach the analysis of the environmental determinants through an institutional approach, in order to deeply understand the institutional dynamics of the external HEIs' environment that have influenced the adoption of the accrual accounting system within them. Furthermore, the extent to which the Greek HEIs have responded to these will be investigated and analyzed in terms of the type and category of each individual institution. Finally, implications will be produced respectfully to the research problem providing thus part of the research data to further achieve integration and harmonization with the quantitative and the qualitative data collected and analyzed in next empirical chapters.

Given the research strategy and design adopted for the scope of a mixed method research approach, the exploration of the current case study will be initiated with an extended review of the existing literature as well as of the legislative framework enforced during the decade of 1998-2008 with respect to the accounting reform attempted in the Greek HEIs. Firstly, a close study of the literature and official government documents referred to the Greek higher education environment and particularly related to the accounting reform legislative framework of HEIs in Greece follows. Further, with particular reference to the Greek HEIs as a system, those elements that have been identified as the unique characteristics of the Greek HEIs environment, as well as, the drivers/or not of accounting reform will be examined. The analysis of the extant literature and official government documents as well as the findings based upon previous studies are considered as being a valuable asset in the

process of making inferences and providing answers to the research questions related to the macro- level institutional forces that have influenced the accounting reform attempted in Greek HEIs during the decade 1998-2008.

5.1 The Greek higher education environment

In the current section the structure and layout of the Greek higher education system will be presented. The examination of the Greek higher education environment will enhance the integration of knowledge from different sources regarding environmental elements which will be considered as the key components of the Greek higher education system. These environmental elements, both external and/or internal, may have influenced the attempted MA change within the Greek HEIs (Papadimitriou, 2011).

5.1.1 The higher education structure

Greece is situated in the Balkans and more specifically on the far southern part of this Peninsula with a total surface area of 131,990 square km and a population of approximately eleven million inhabitants. This area includes well over two thousand islands that are located in the Ionian and the Aegean Seas. Athens is the capital of Greece with Piraeus to be its main port. Athens population is well over three million inhabitants. Thessaloniki is the second largest city in the country and has a population of approximately one million inhabitants. Thessaloniki constitutes a very important centre from both an economic and a cultural point of view for northern Greece (Kyriazis & Asderaki, 2008). Since 1975 Greece has been a Parliamentary Republic

and it an EU member state in 1981 while in 2001 the country joined the EU economic and monetary union.

According to law 3549/2007 (article 2), the formal higher education system in Greece comprises of two parallel sectors: The university sector and the technological sector. In specific, the university sector constitutes of eighteen Universities, two Technical Universities, one Open University, one International University and one School of Fine Arts while the Technological sector includes fifteen Technological Education Institutions (TEIs) and one school of Pedagogical and Technological Education (Table 5.1). In total, the formal Greek higher education sector is composed of thirty-nine HEIs, including also the School of Pedagogical and Technological Education, which award recognized degrees.

University Sector	18 Universities 2 Technical Universities 1 Open University 1 Institutional University 1 School of Fine Arts
Technological Sector	15 Technological Education Institutions 1 School of Pedagogical and Technological Education

Table 5.1: Greek Public HEIs typology (adapted from the Ministry of Education).

In the following table (Table 5.2) the 23 universities are presented according to their foundation date and geographical location. The first Greek university was founded in Athens on 3 May 1837 and was named the “University of Othon” due to the first King of Greece, the Bavarian Othon, in 1833. Since then more universities such as the

University	Foundation date	Location
National and Kapodistrian University of Athens	1837	Athens
National Technical University of Athens	1837/1917	Athens
Athens School of Fine Arts	1837/1930	Athens
Aristotles' University of Thessaloniki	1926	Thessaloniki
University of Patras	1964	Patras
University of Ioannina	1964/1970	Ioannina
Demokritos University of Thrace	1973	Agrinio
		Komotini
		Xanthi
		Alexandroupoli
University of Crete	1973	Orestiada
		Rethymnon
Technical University of Crete	1977	Herakleion
University of Aegean	1984	Chania
		Mytilini
		Chios
		Rodos
		Karlovassi-Samos
University of Thessaly	1984	Ermoupoli-Syros
		Volos
		Larissa
		Trikala
Ionian University	1984	Karditsa
Agricultural University of Athens	1920/1989/ 1995	Corfu
		Athens
Athens University of Economics and Business	1920/1989	Athens
Panteion University	1927/1989	Athens
University of Piraeus	1938/1989	Piraeus
University of Macedonia, Economic and Social Sciences	1948/1990	Thessaloniki
		Edessa
		Naoussa
Harokopeion University of Athens	1990	Athens
Greek Open University	1992/1997	Patras
University of Peloponnesus	2000	Tripoli
		Kalamata
		Sparti
		Nafplio
		Korinthos
University of Western Macedonia	2003	Kozani
		Florina
University of Central Greece	2003	Lamia
		Livadia
International Hellenic University	2005	Thessaloniki

Table 5.2: Greek universities presented according to date of foundation and geographical location (adapted from the Ministry of Education).

National and Kapodistrian University of Athens, the National Technical University of Athens and the Aristotles' University of Thessaloniki were established, too. Later, during the twentieth century, the establishment of more universities in various cities of Greece was based on the model of the above already existing universities. In 1997, the Greek Open University was established which commenced operations in 1998. Greek Open University is the only HEI that provides education and training courses on a distance learning basis. Finally, in 2005 the International Hellenic University was established in Thessaloniki which started its real operation in 2007-2008 academic year (Kyriazis & Asderaki, 2008). The International Hellenic University is a particular type of HEI as it is completely independent and self-administrated and has been financed jointly by the European Union and the Greek state in terms of the internationalization of higher education. Thus, it aims to cater towards the needs of the international community providing education and research in international students. The duration of studies in the Greek HEIs lasts approximately for four years. However, there are certain faculties where the duration of the studies lasts longer by one or two additional years (Table 5.3).

DURATION OF STUDIES					
	1-2 years	3 years	4 years	5 years	6 years
HEIs Undergraduate Courses			X		
Engineering				X	
Architecture				X	
Agriculture				X	
Pharmacy				X	
Veterinary				X	
Dentistry				X	
Arts				X	
Medicine					X
Postgraduate courses	X				
Doctoral studies		X			

Table 5.3: Duration of studies in the Greek HEIs (adapted from the Ministry of Education).

The students who successfully pass all their academic requirements receive a Diploma or Degree. Also, universities in Greece offer postgraduate programmes and they mainly focus on research. The technological sector of higher education in Greece constitutes of 15 TEIs and a School of technological and pedagogical education (Table 5.4).

Name of the institution	Foundation Year	Seat and branches
1. TEI of Athens	1973/1983	Athens
2. TEI of Piraeus	1973/1983	Piraeus
3. TEI of Thessaloniki	1973/1983	Branch: Spetches Thessaloniki Branches: Kilkis, Moudania, Katerini
4. TEI of Patras	1973/1983	Patras Branches: Aigio Amaliada, Pyrgos
5. TEI of Crete	1973/1983	Herakleion Branches: Chania, Rethymno, Lasithi (Ag. Nikolaos Ierapetra, Siteia)
6. TEI of Larissa	1974/1983	Larissa Branch: Karditsa
7. TEI of Western Macedonia	1976/1999	Kozani Branches: Florina, Kastoria, Grevena
8. TEI Kavala	1976/77	Kavala Branch: Drama
9. TEI of Serres	1979/1983	Serres
10. TEI of Messologhi	1981	Messologi Branch: Nafpaktos
11. TEI of Chalkida	1986	Chalkida
12. TEI of Epirus	1994	Arta Branches: Ioannina, Preveza, Igoumenitsa
13. TEI of Kalamata	1988/89	Kalamata Branch: Sparti
14. TEI of Lamia	1994	Lamia Branch: Karpenissi A
15. TEI of Ionian Islands	2003	Lefkada Branches: Kefalonia (Lixouri, Argostoli) Zakynthos
16. School of Pedagogical and Technological Education	1959/2002	Athens

Table 5.4: Greek TEIs presented according to date of foundation and geographical location (adapted from the Ministry of education).

The establishment of the Centres for Higher Technical Education (KATE) in 1970 was a consequence of the need for specialized and skilled staff in technical sector that was emerged in Greece.

According to Bourantas and Papadakis (1996, p. 14) “Since the second world war, the country has experienced a rapid shift from a mainly agricultural economy to an industrial and service-based economy”. Actually, KATE operated in the 1973-1974 academic year and later they renamed as Technological Educational Institutes (TEIs). According to the law 1404/1983 TEIs were defined as Institutions of higher education but now equally to universities. Later, with the law 2916/2001 TEIs have defined as the technological sector of higher education. Then, the duration of the studies in Greek TEIs is eight semesters in total with the final semester devoted to the preparation of the dissertation. Also, during the final semester, students can join the placement scheme where their progress and performance will be monitored and assessed while at the same time they will acquire useful professional experience and perhaps will be retained for permanent employment. The students who successfully pass all their academic requirements receive a Degree. TEIs cannot offer postgraduate study programmes yet, unless in collaboration with universities. However, the degrees they award provide graduate students with access to postgraduate studies in Greek and international universities. Recently, TEIs defined by the Law 3549/2007 as being with universities the HEIs of higher education and thus operate in parallel (Kyriazis & Asderaki, 2008). Katharaki and Katharakis (2010, p. 117) made implications about a centralized governance system since stated that:

“Although Greek HEIs have elected governing bodies, the State bodies are responsible for the planning and implementation of these admission examinations (conducted nationwide) as well as for final admission numbers.”

Indeed, entrance of students to the Greek HEIs is secured via the successful completion of a series of national entrance examinations.

5.1.2 Significant reforms: A historical background

Article 16 of the Greek Constitution which was enacted in 1975 and its amendment in 1986 (paragraphs 5 and 6) as well as the Parliamentary law 1268/1982 govern the operation of the country's tertiary education system with the later constituting the actual operational frame. The Constitution states clearly that education is free at all levels and should be provided to all citizens. Thus, the state is responsible for establishing academic freedom, freedom of research, science and teaching. According to the Constitution, HEIs are legal entities of public law that are completely self-administered. The Greek Constitution of 1975 (article 16) in Greece define the core principles that rule the higher education sector. According to the article 16:

- The art and the science, the research and teaching are free while their development and promotion is duty of the state.
- Education is the basic mission of the state with the aim of intellectual, occupational and physical education of Greek citizens, the development of a national and religious conscience and their training to free and responsible citizens.
- All Greek citizens have the right to free education at all levels in the public institutions.

Also, the Article 16 highlights the academic freedom and the freedom of teaching in education. On the other hand, it clearly defines that the state supervises the HEIs with the state control exercised by the Ministry of Education, as it is stated:

“Education at university level shall be provided exclusively by institutions which are fully self governed public law legal persons. These institutions shall operate under the supervision of the State and are entitled to financial assistance from it; they shall operate on the basis of statutorily enacted by-laws”.

According to the Article 16 the HEIs are financed by the state’s taxation revenues and that could be considered as the main reason for being controlled by it (Papadimitriou, 2011). Furthermore, there are specific laws regarding their governance and operation, even though they are defined “fully self governed”. Additionally, the internal regulations of each individual HEI determine particular academic and administrative issues concerning their operation. A significant effort for a major reform in Greek higher education was considered that had been made by the Law 1268/1982 regarding “The Structure and Operation of Higher Education Institutions”. It is claimed that this particular law constitutes the major and most significant reform that took place in the area of Greek higher education since 1932 when the National and Kapodistrian University of Athens was established (Papadimitriou, 2011).

The higher education system in Greece was reformed by the Law 1268/1982. This law remained valid for twenty five years after its adoption until March 2007. It had brought numerous changes namely, the definition of departments as independent units that could award degrees. In addition, students as well as other HEI bodies were given the

right to participate in their administration. However, despite the fact that Law 1268/1982 provided HEIs with a high degree of academic autonomy, the financial dependency from the state remained unchanged. Saitis (1988, p. 249) criticized that still “bills were drafted on the basis of hastily prepared reports and there was no evidence that systematic research was conducted into problems and needs of university education”.

Further, a significant number of laws have been activated improving and supplementing the Law 1268/1982 but without affecting its basic principles, values and overall philosophy (Papadimitriou, 2011). A shift of the governmental policies towards neo-liberal directions during the early 1990s was evidenced as a result of international political and ideological changes. The participation of Greece in the European Economic and Monetary Union and the upgrading of the country's position internationally emerged as national aim and a necessity the country's economic development and the enhancement of its economic competitiveness. As a result, the government had to implement policies of austerity and confront social and labour demands. It was within this very context that a new educational policy was implemented, aiming in solving existing problems and adapting to the new conditions as these were formulated by the convergence to a common European frame (Georgiadis, 2007). This policy was promoted through a series of laws, such as law 2083/92, 2327/1995 and law 2525/97. Especially with law 2525/97, known as law “Education 2000”, the government wanted to accommodate the new demands of the welfare state for the provision of free education of high standards for all citizens but with adjustments to the market needs and with the promotion of a “competitive-

effective” school model. With “Education 2000”, the HEIs were provided with more responsibilities at the level of academic-administrative management. Laws 1268/1982 and 2525/97 are considered as the most fundamental laws of higher education in Greece until the year 2000. Obviously, the trend of education was following a new direction towards the total restructuring of the Greek system of education since it was viewed as a key component of economic competitiveness in international level (Georgiadis, 2005; Ball 2007). In this vein, a series of legislative reforms initiated since 2004 and tremendous changes were undertaken in the Greek higher education sector challenging the autonomy of HEIs regarding issues of their administration, the structures of studies, the assessment of both academics and students and their funding (Georgiadis, 2007; Gouvias, 2012). It is suggested that the major reforms experienced since 2004 in higher education sector could be classified into quality, efficiency and performance that were related basically to Laws 3374/2005 and 3549/2007. However, one of the most important attributes of these reforms was the introduction of a new funding system for HEIs with the association of the planned assessment of the Greek HEIs with the future planned funding provided by the state. Assessment and quality indicators towards the improvement of the HEIs responsibility and accountability in terms of their academic programmes, staff and resources were demanded to be identified by the legislation. Legislation was referred to indicators and quality measures focusing on common standards and procedures for efficient investment and sufficient and sustainable resources that effectively respond to the new challenges (Georgiadis, 2007).

However, all the above mentioned reforms experienced in the Greek higher education sector were criticized initially for their inefficiency and ineffectiveness implying the

strong influence of political dynamics activated within the HEIs (Papadimitriou, 2011). Indeed, since Saitis (1988, p. 257) noted that, “the structure of Greek higher education is strongly influenced by the political and administrative system in which it is embedded and especially by an entrenched concept of centralised authority” and suggested that in Greece the HEIs (Saitis, 1988, p. 258)

“do not enjoy a considerable degree of autonomy. There is no clear-cut definition of areas of responsibility and authority between State and universities and the latter do not have the power to manage their own affairs. At all times they are under political supervision because their affairs demand ministerial approval and their budgets are approved and implemented under the powers of the Ministry of Education and the Ministry of Finance”.

More recently, Gouvias (2007, p. 299) supported that

“The political structure of Greece (centralisation of policy making), as well as the rigid administrative structures, do not allow for the existence of many common trends with other countries of the ‘West’ in reforming the institutional framework of education.”

Also, Katharaki and Katharakis (2010, p. 117) referred to the Greek higher education system as following:

“The Ministry of Education determines human resource issues, including all human resource policies and management systems, the number of staff posts allocated to individual universities and departments, recruitment regulations, faculty remuneration, staff appointment, promotion, social security, pension, etc. All academic and non-academic staff are civil servants and are paid by the State.”

In brief, according to the Greek Constitution, HEIs are autonomous institutions under the “legal auspices of public law” (Saiti, 2010, p. 47). This means that their mission and operation is determined by the law, and therefore it is uniform across all universities. Obviously, the relation between the state and the Greek HEIs is formed by legislation regarding the two key points of the self-governance and supervision of HEIs (Saiti, 2010). Contradictory, they enjoy academic and governance freedom while their activities are supervised and controlled by the state. It is claimed that the equilibrium between institutions autonomy and state control is quite a critical affair and causes many problems and friction in their relationship (Papadimitriou, 2011). Especially, in the case of Greece which “still lags far behind the other technologically and economically advanced countries of the West” (Gouvias, 2007, p. 28).

5.1.3 Funding and accountability

5.1.3.1 Funding

With exception the Greek Open University, higher education in Greece do not charge fees. According to Katharaki and Katharakis (2010, p. 116) “In general, universities have negligible funds, since no student fees are charged”. Respectfully to the Constitution, HEIs are funded by government and the public investments’ programme. “Until now, Greece has had an equal opportunity system available free to all residents: publicly financed primary, secondary and higher education...” (Asteriou & Agiomirgianakis, 2001, p. 482). Venieris and Cohen (2004, p. 186) supported that “Greek Universities are almost solely based on subsidies due to practically minimal revenues either from Universities’ activities or from other sources”. Funding in higher education is decided on an annual basis by the central government and the Ministry of

Finance (Law 1268/1982). The specific needs of each HEI are seriously considered when they negotiate the amount of funding to be received from the Ministry of Finance (Eurydice, 2000). According to Katharaki and Katharakis (2010, p. 117) “It should be noted that the distribution of financing between universities is based on the number of students and the age of the universities, and is determined by concrete formulae”. The financing of the HEIs derives from the government budget and is delivered in a threefold manner. The first one covers the salaries of the permanent personnel mainly administrative staff, the second one covers the salaries of the academic staff and the third one covers the necessary funds required by HEIs to cope with their operational expenses. The amounts involved in the first two ways cannot if not at all be easily flexed as they involve salaries which include legal (Law 2530/97) provisions according to the rank, marital status and the number of years of service. There is some flexibility with regard to the amounts involved in the third way as it involves funding for the covering of operational expenses which is provided as an amount for each student enrolled. Approximately 95% of the expenditure funding is financed jointly by the budgets of current account and of public investment (Mattheou & Saiti, 2005). Funding for HEIs from the current account budget is mainly provided for functional and operational expenditures, which include the salaries of permanent teaching and/or research staff members, salaries of administrative staff members, expenditures for additional staff payments, expenditures for textbooks and other operational expenses. The budget of public investment is provided for HEIs’ capital needs. As Mattheou and Saiti (2005) described, HEIs are being asked on an annual basis to determine and provide a budgeted forecast on expenditure data for the forthcoming financial year to the Ministry of Education. Each individual HEI is responsible for sending its budgeted

expenditure forecast to the Finance Directorate of the Ministry of Education together with the accompanying expenditure justification which in turns submits them to the General Accounting Office. Next, the Ministry's Finance Directorate together with the General Accounting Office liaise together in order to examine and discuss the forecasts received in order to determine an optimum plan regarding public spending. This plan is examined with regard to the budget provided from both the Ministries of Finance and Education. It is anticipated that HEIs may enter into a bargaining process with the respective government agent regarding the amount being claimed (Mattheou & Saiti, 2005). According to Venieris and Cohen (2004, 186)

“due to lack of trust between the two parties (i.e. the Ministry of Education and Universities) the budget is never approved as submitted and adjustments are made unilaterally by the Ministry of Education”.

According to the description of Mattheou and Saiti (2005) the final decision about the budget is made by the Ministry of Finance following the approval by the Parliament. Following that decision, the Ministry of Education and, in turn, HEIs is being notified about the amount granted to their budgets. The HEIs are then able to access and operate their budgets by following the General Accounting Office's instructions. The budget available to each HEI is not allocated by the Ministry's Finance Office equally in each month during the fiscal year. Instead, they receive 15% of their budget for the period of the first quarter of the year, 25% for the second quarter and 30% every two months for the remaining four months of the fiscal year. There are unique debit codes for every single type of academic issue. Every debit code has been allocated a certain budgeted amount. When particular codes are consumed or are very near to full consumption then

HEIs have to reapply for the reception of additional funds to cover the needs of the particular codes as they are not allowed to transfer funds from one code to another without prior approval. This may often be the case for HEIs as they do not receive the full amount of their funding at the beginning of the fiscal year and the absorption rate is usually causing the balances of these codes to run low (Mattheou & Saiti, 2005). Venieris and Cohen (2004, p. 186) stated that:

“Universities can always alter the budgeted amounts of various categories through continuous revisions, as long as the sum of budgeted expenses is not changed in total, compared to that which was initially approved. Nevertheless, because, firstly, budgeted subsidy flows are not kept correctly, in terms of amounts or dates, by the Ministry, and, secondly, actual expenses are always greater than budgeted, a University’s financial position continuously shows a deficit.”

However, entrepreneurial activities of Greek HEIs regarding both academic research or provided services are allowed by legislation. Indeed, HEIs have made significant efforts to attract funding and resources through participation in various EU programmes with the assistance of the Special Account for Research Grants which operates in each individual HEI (Katharaki & Katharakis, 2010). It is noticeable that in some cases funding for research projects provided by private sources is higher than that provided by public budget. It is, also, true that not all HEIs have access or can attract private sources funded thus exclusively by the state (Papadimitriou, 2011).

5.1.3.2 Accountability

It is supported that accountability is the responsibility of those who control and manage the resources to others, such as state and/or public and concerns issues related to the

exercise of their responsibility (Spathis & Ananiadis, 2004). In the case of Greek higher education, it is seemed that accountability has increasingly gained importance and has been recommended by the new legislation (Gouvias, 2012). According to Gouvias (2012, p. 72)

“this is a ‘high-stakes’ accountability model, in the sense that it links performance, as measured by certain predetermined and externally assessed criteria, to future funding and administrative support for all HE establishments”.

In the case of the Greek HEIs, it is their responsibility the effective management of their financial resources. With respect to the Law regarding accountability of the HEIs, the Ministry of Finance is the responsible authority to control this kind of responsibility that HEIs exercise regarding their financial resources. In this term, at the end of each fiscal year annual financial reports are submitted by HEIs so that the legitimacy regarding the management of their financial resources to be examined by the state (Mattheou & Saiti, 2005). However, the state control restrictions extend to financial management procedures, as all expenses have to be controlled by economic authorities and every provision of large-scale equipment has to follow stringent time-consuming processes (Papadimitriou, 2011). This often has created bureaucratic problems for HEIs since they had to justify this type of expenditure. According to Venieris and Cohen (2004, p. 186):

“The budget’s aim is towards the stewardship of the public money and not towards performance measurement and management control. The reason is that the budget does not reflect clear and measurable goals. The description above is consistent with the old-style administration of public money according to a prescribed programme of expenditure”.

Furthermore, Venieris and Cohen (2004, p. 186) supported that:

“...actual expenses are always greater than budgeted, a University’s financial position continuously shows a deficit. This deficit is supposed to be covered by new subsidies, but the main point is that there is no incentive for expenditure control”.

Apparently, there is evidence that Greek state does not advocate the view that suggests that

“financial university management and the allocation of public revenues would be more efficient if it could be delegated to the relevant institution rather than reverting to the larger bureaucracy which runs other levels of education” (Saiti, 2010, p. 55).

5.1.4 Public Management issues

Bourantas and Papadakis (1996) have precisely described and presented particular characteristics of the Greek management context that has derived from three empirical studies conducted in Greece. Since Greece has experienced an evolution in the industry and services sector of the economy the public sector has also been enlarged and as a result the authors (Bourantas & Papadakis, 1996, p. 2) mentioned that “There exists a very large public sector, which is often uncompetitive, and its huge deficit is a major problem to the whole Greek economy”. One of the main reasons for this is considered to be the strong power of the political forces over the top management of public entities, such as

“Even today the top management of all major public enterprises is appointed by government and the key criteria for appointment are their loyalty and contribution to the political party, rather than their managerial competence”. (Bourantas & Papadakis, 1996, p. 24)

Later, Makridakis et al. (1997, p. 382) studied the Greek economy and business environment stated that “Greece seems to have the most centralized administration and also one of the worst bureaucracies..” They also highlighted the peculiarities of the Greek government system which is characterized by frequent changes in laws and short-term concentration. The authors (Makridakis et al., 1997, p. 394) supported that

“Such frequent changes introduced not only when governments from different political parties change, but even when the change is within the same party, or even when a new minister from the same government takes over”.

The authors also observed that undoubtedly all Greek governments concentrated the majority of their attention on solving the short term problems while they should focus on the formulation and the implementation of a long-term strategy. Indeed,

“This is true for the great majority of Greek firms and undoubtedly for all Greek government which without exception, must concentrate practically all their attention on solving the crises “of the day”, instead of formulating and implementing a long-term strategy...”(Makridakis et al., 1997, p. 394).

From the authors’ view this “short-termism” is the “worst characteristic of the Greek management (and also of Greek governments)” (Makridakis et al., 1997, p. 394).

Regarding the specific sector of higher education it is supported that the management needed to play a crucial role in the identification and understanding of the major developments in the higher education sector (Mattheou & Saiti, 2005). Especially, the relations between the state and HEIs have become prominent issue related mainly with the changing role of the state in HEIs' management and the implementation of management principles, mechanisms and techniques. It is stated that the integration and coordination of HEIs into a coherent higher education is a difficult matter since each individual HEI provides an essential public service (Saiti, 2010). Indeed, it has become increasingly costly for HEIs to provide their services due to the growing numbers of students and the expansion of their facilities. While in some countries the institutions of higher education has been increasingly depended on public funds to meet these extra costs, in Greece this dependency has increased enormously. This implied the potential limitation of HEIs autonomy due to the strong influence of the state (Saiti, 2010). In this case the need for a clear management structure has increased aiming to the successful organizational operation and productivity. It seemed that the growing concern over the Greek HEIs management has come "at a time when academic institutions struggle to act ever more swiftly, efficiently, and economically to absorb the increasing demands on their resources" (Saiti, 2010, p. 47). Indeed, since 1996, successive governments have set among their primary objectives the transformation and modernization of the largely unproductive Greek Public Sector. Following, the attempts of the Greek government to advance the accounting reform of the public sector including HEIs will be presented historically, as well as, the considerable criticism that has been formulated so far regarding the weakness and disadvantages of this attempt.

5.2 Towards the accounting reform

It is suggested that, even though reform in public sector does not usually follow a unique model, strategies implied seems to have many common points emphasizing thus the international character of public management reform (Tiron-Tudor, 2006). In this vein, the public sector in Greece, following the example of many countries from around the world and within the NPM context, has coped with numerous changes and reforms related to MA in order to meet the challenges that have emerged at a national and international level (Stamatiadis, 2009; Venieris & Cohen, 2004). With the introduction of NPM, the focus of the Greek government was directed towards the efficiency in performing through ICT tools in the form of process optimization, synergies between authorities, new and existing systems and interoperability. An example could be the improvement of the results for services and administrative control and sustainability in the form of innovativeness, improved performance and better cooperation (Padovani et al., 2012). The focus of the initial reform was the modernization of the existing traditional accounting system used by public organizations (Stamatiadis, 2009). According to Venieris and Cohen (2004, p. 201):

“The accounting reform was initiated by the Ministry of Finance as an answer to the intense problems of lack of control over subsidies given by the State Budget to public organisations and also to the international trend that had been developed towards NPM at that time”.

More particularly, the introduction of the accrual basis accounting system in various public entities was enforced by the Greek government in 1997 following international trends in public sector based on the claimed benefits of NPM. In addition, Greece's participation in the European Economic and Monetary Unification and the convergence

of the Greek economy with the European nation-members have activated the Greek government towards financial management initiatives (Venieris & Cohen, 2004) based on a general tendency of reforming cash basis accounting into accrual basis accounting (Christiaens, 2000; Christiaens & Wielemaker, 2003; Venieris & Cohen, 2004). The new accounting system focused on the measurement of organizational assets and liabilities and on the improvement of performance and financial management in public entities and potentially on the improvement of the appropriation of taxpayers' funds (Cohen et al., 2013). For example, the statement of the Governor of the Reserve Bank in New Zealand highlighted the core role of accounting as an instrument of change experience: "We have greatly improved the efficiency of resource use in the public sector... partly through the simple expedient of introducing proper accounting principles to the public sector" (Brash, 1998, p. 3).

In this respect, a change in public accounting towards compulsory accrual basis accounting seemed necessary as the cash basis accounting system was not capable of satisfying the new needs for performance measurement (Padovani et al., 2012). This was mainly attributed in its limitation to provide accounting information that would be useful for the processes of control, planning and evaluation of performance (Lapsley, 1999). On this basis, the Greek government introduced the new accounting system, titled as the 'State Budget Administration System', in public sector entities, including the HEIs. Venieris and Cohen (2004) described briefly the new accounting system that monitored public organizations budget via the application of a uniform and analytical plan of codes. According to the authors (Venieris & Cohen, 2004), all accounts were assigned a particular code and in total they constituted the coding plan against which

budgeted and actual revenues and expenses of public entities were recognized. The Ministry of Finance has imposed specific guidelines that all public sector organisations, including HEIs, were obliged to follow in the preparation of their budgets. These guidelines mainly specified the yearly increase allowance for the various expense categories based on the previous year's actual figures. However, the authors (Venieris & Cohen, 2004) underlined that this yearly increase allowance did not take into consideration the forecast changes of numerous key factors (i.e. student numbers, contact hours, etc.). Finally, the yearly budget submitted by HEIs should be balanced with the difference between operating revenues and expenses being covered via the requested subsidy by the Finance Office of the Ministry of Education. According to Venieris and Cohen (2004) the process of the accounting reform and the implementation of the accrual accounting systems in HEIs have been unfolded in six chronologically separated periods, characterized as in the following sub-sections (Table 5.5).

Phases of the reform process	
1996	The problems that stipulated the accounting reform
1997	National budget report documentation
1997	Development of the accounting reform framework
1998	National budget report documentation
1998	Problems regarding jurisdiction of the reform (1997-1999)
1999	National budget report documentation

Table 5.5: Phases of the reform process (adapted from Venieris & Cohen, 2004).

The above description of the various phases of the accounting reform process in the Greek HEIs was examined by Venieris and Cohen (2004) during an in depth study they

made in 2002, six years after the initial conception of the accounting reform. According to the authors

“Via an analysis of the context within which this reform is taking place, we endeavour to explain why this reform, six years after its conception, has not yet seriously progressed” (Venieris & Cohen, 2004, p. 184).

In particular, the above inquiry was an extended study reflecting thus the legislative framework. In particular, the legislative framework was based on National Budget Reports, Presidential Decrees or other written reports and official documents. More recently, Papadeas's (2008) study examined the HEIs' funding and compared the generalized application of Government Accounting to the gradual simultaneous application of the Chart of Accounts for the State Law Entities by only several institutions. The study concerned the legal and financial environment of the Greek HEIs and examined the accounting systems that have been adopted and still remain in practice due to statutory regulations. According to the author

“the comparison shows an enormous gap in information and provides intimate understanding of a particular problem of the «Economics of Education», but also affects the optimal use of funding towards the Tertiary Education” (Papadeas, 2008, p.96).

Therefore, both the above mentioned studies of Venieris and Cohen (2004) and Papadeas (2008) are undoubtedly considered as the foundation of the following section's development. The presented legislative framework as well as the critical views of the authors will be used in order to structure the frame of the external institutional environment of the HEIs regarding the accounting reform derived by the

government political willingness in 1996-1997 and which the Greek legislator provided finally in 1998 (P. D. 205/98). In addition, the National Budget Reports (NBR) dated back in 1997, when the initial accounting reform was proposed, constitute original documents and sources and, as such, they can be used to support the development of the current inquiry.

5.2.1 The initial accounting reform concept

During the period 1996-1997 numerous countries started introducing and applying to their public sector the accrual basis accounting system and various MA practices that had previously been initiated and applied in the private sector. Influenced by this trend, the Greek Deputy Minister of Finance initiated an accounting reform to the entire public sector that was being subsidized by the government. According to Venieris and Cohen (2004) the international examples of implementation of NPM principles to the public sector coupled with the funding problems deriving from the subsidized public sector's lack of control and the need of the Greek economy to converge towards the EU economy constituted the determinant context for the need for change of the national strategy towards resource allocation in the above sector. The need for strategic change brought together interested groups such as administrators and accounting staff from Universities, the Ministry of Education, and the National Council of Accounting (ESYL). In a study developed by the Ministry of Education aiming in the analysis and assessment of higher education a collaboration was proposed between the Ministry of Education, the Ministry of Finance and Economics and the HEIs as well as the transformation of the current budgetary system to a reporting one (Papadeas, 2008). The power of all the groups mentioned above was evidenced during the process of

change as it was exercised and thus exerted influence during the process of strategy implementation. The National Budget Report of 1997 was the first one to include a quote on the need for the public sector's accounting system to undergo a reform and the new accounting framework was titled "System of Integrated Accounting Surveillance (SIAS)" (Venieris & Cohen, 2004). As it was highlighted in the explanatory report, the compilation of the annual budget report indented to be oriented to the harmonization of the government goals and the action programmes of the public entities in order to achieve the public management effectiveness and efficiency (NBR, 1997, p. 71). For this purpose, changes were demanded including the accounting and financial information management provided by the subsidised entities. It was also addressed that the SIAS aimed to the enhancement of the subsidised entities' accountability and the resources' efficient use in alignment with the international tensions (NBR, 1997; Venieris & Cohen, 2004). Indeed, from that time onwards, it was made clear that the subsidies allocated to the various public sector entities needed to be based on the financial statements concerning their own assets, the receivables and payables as well as the operational cost (NBR, 1997, p. 73). Papadeas (2008) also supported that the increased quantity and comparability regarding reporting could assist the management of the public sector in a way relative to the way it assists the management of the private sector. Furthermore, the effective control of the Greek HEIs depended critically on effective measurement. The detailed provided account reports based on the accrual accounting system should motivate all the parties involved towards effectiveness and improved performance (Papadeas, 2008). Finally, the explanatory report defined that in order the new goals to be achieved the gradual transition from the cash basis system to the accrual accounting system was demanded. The new State Budget Administration

System would be characterized by modern accounting principles and standards based on the accrual accounting system. It would also include all the appropriate Accounting Charts in order to completely monitor the assets and the financial results of the entities and would identify the accounting records and the way of their monitoring by considering in parallel the existing State Budget Administration System (NBR, 1997, p. 74).

Finally, it was suggested that SIAS would be put in full operation in the entirety of the public sector on January 1999 and that all the necessary preparations would have to be completed during the course of 1998. All these actions were performed with regard to the acquisition of the necessary hardware and software, the training of the staff employed in the respective accounting department of each entity, as well as, all other administrative issues related to the introduction of the MA and the accrual basis accounting system.

5.2.2 Further accounting framework development

The NBR of the 1998 further supported the adoption of the SIAS by public sector demonstrating the effectiveness of the new accounting system in terms of the quality of the reporting statements due to the use of both the accrual basis accounting system and the appropriate accounting plan (NBR, 1998, p. 172). The explanatory report was also referred to the acts undertaken during the year 1997 towards the introduction and implementation of the SIAS in the public entities, such as:

- The determination of five public entities starting the application of the SIAS, including the Greek HEIs.

- The post of the transactions at six public organizations one of which would be a university in order to test the new accounting chart's appropriateness separately for each one of them and finally it was deemed as most appropriate.
- The preparation of the Accounting Blueprint for each one of the five public entities. The Accounting Blueprint contained the accrual accounting system principals, the appropriate accounting chart based on the accounting needs of each one of the entities, examples of journal entries, a complete costing model as well as the content of financial statements reported and published at year end by each of the public entities.
- The completion of an inquiry on public organisations' needs in terms of the application of the new accounting system. Following the completion of this inquiry, several needs were revealed in technological areas such as hardware that would facilitate the computerised use of customised software. The customised software would serve the 'new' needs of the HEIs as it would allow for the concurrent operation of both accounting systems (cash basis and accrual basis) and the training of the accounting departments' staff. Finally, the identified need for training in the principles of the accrual basis system of the staff employed in the HEIs' accounting departments initiated the process of training in some HEIs (Venieris & Cohen, 2004).
- The decision of voluntarily participation of six public hospitals, eight HEIs, five local government organizations, three research institutions and one national insurance agency. These public organizations would implement the SIAS from 1st January, 1998, as pioneers of the attempted accounting reform. According to Venieris and Cohen (2004), two HEIs were finally selected.

The provision of the financial statements was also decided on a three months or annual basis. Balance sheets should be provided in a three months basis by all public entities while quantitative and costing data of the departments should be reported in an annual basis by HEIs. Similarly, personnel salaries and rewards expenses, revenues and expenses reports as well as indicators should be provided by all public entities in an annual basis (NBR, 1998, p.174). Finally, further actions were proposed for the control of the new accounting system implementation and the improvement of the processes and the solution of the problems derived (NBR, p. 175).

According to Venieris and Cohen (2004) the timetable for the development of the framework for the above described accounting reform was very tight. It was assigned by the Deputy Minister of Finance to an expert team consisting of both academics and professionals. The authors (Venieris & Cohen, 2004) supported the employment of consultants in this respect to the literature which suggests that projects of public sector accounting reforms usually require the employment of consultant with experience from the private sector or from academia caters towards the delivery of the necessary changes. These experts are considered to be objective and their suggestions may provide legitimacy to the various decisions and also assist to minimize opposition. Moreover, management consultants are considered to constitute the key levers in the process of changing the public sector's management practices. Their role is to provide advice to the central government on the reforms under development and also to advise the management of public sector institutions on policy implementation issues, as well

as, on the reform issues involved in organizational and management practices (Gouvias, 2007).

As it is already mentioned in the NBR of 1998, the project team had already prepared the Universities' Blueprint of Accounting by the end of 1997. The Accounting Blueprints contained private sector like charts of accounts and these allowed posting concurrently accounting entries to both the cash basis and the accrual basis accounting system (Venieris & Cohen, 2004). According to the P. D. 205/98 the public sector entities that prepare and execute budgets (cash basis accounting system) needed in parallel to apply the Chart of Accounts for the State Law Entities (accrual accounting system), which included the obligation to keep both accounts of financial accounting and cost accounting (Papadeas, 2008). Consequently, the existing system of budgeting (cash basis) would not need to be replaced with the introduction of accrual basis accounting system but both systems would operate in parallel. According to Venieris and Cohen (2004) legislative issues regarding the Ministry's of Finance jurisdiction to produce Accounting Plans resulted in the confrontation of the implementation of SIAS. This right is assigned by the law exclusively to the National Council of Accounting (ESYL). The Accounting Blueprints were not approved by the ESYL. As a result, it assigned to the Chamber of Finance the preparation of an official Sectorial Accounting Plan for the Organizations of the Public Sector (SAPOPS) in which, finally, the Presidential Decree (P.D. 205/98) was based upon. With regard to the P.D. 205/98, Spathis and Ananiadis (2004, p.19) have provided that the accounting reform focused on applying the following:

“(1) A double entry system (accrual accounting) with the obligation of keeping corresponding ledgers and issuing the proper documentation.

(2) A sectoral accounting plan in three accounting cycles, each functioning autonomously but in parallel with the others: financial accounting, cost and management accounting, and budget accounting.

(3) The issuance of financial statements, i.e. balance sheet, profit and loss accounts, profit distribution, annex”

HEIs were due to implement the accrual basis financial accounting by January 1, 2000 while the introduction of cost accounting was due by January 1, 2001. In the NBR of 1999 the explanatory report referred to the new accounting system in terms of its importance and usefulness on a theoretical basis and the so far related actions undertaken since the initial phase of its implementation in 1997 (pp. 151-153). No concern was made neither to the further improvement of the new accounting system application nor to actions undertaken to face the emerged problems from its application in real conditions.

The proposed accounting reform was a government initiative with which the government hoped to improve the ability of the public sector entities to provide transparent and comparative financial reports. This fact would render them more responsible towards the undertaking of particular projects or the fulfilment of a particular obligation enhancing their accountability, so that reliable results could be extracted for the more efficient and effective management of the public funding provided to them. However, most of the Greek HEIs have not implemented this particular obligation due to numerous problems (Papadeas, 2008). Further, the proposed accounting reform gave a significant rise to the criticism that was initiated from the

public sector organisations claiming that the proposed measures of financial performance are not consistent with the reason for which they exist as they are only aiming in measuring their financial success and not the social benefit provided (Venieris & Cohen, 2004).

5.2.3 Obstacles to the accounting reform: a considerable criticism

5.2.3.1 Politics

As mentioned above, the accounting reform in public sector including HEIs was promoted by the Ministry of Finance. However, Greek HEIs are supervised by the Ministry of Education which did not seem to apply any kind of pressure on HEIs toward implementing the new accounting system. The only type of formal pressure was provided by the Presidential Decree (P.D. 205/98). As a result, the adoption of the P.D. 405/98 by Greek HEIs was questioned for some time, as it was not undersigned by the Minister of Education. Finally, the dispute about the P.D. 205/98 being applicable to HEIs was resolved shortly by mid 1999 (Venieris & Cohen, 2004). In addition, the interest in the adoption of the new accrual basis accounting system seemed to be decreased from the side of Ministry of Finance. It is obvious by the content of the NBR of 1999 (pp. 151-153) related to the implementation of the accrual accounting. Similarly, from the side of the Ministry of Education there was not sufficient interest towards the support of the accounting reform. According to Venieris and Cohen (2004, p. 192):

“It exercised its power against the change by not issuing any detailed instructions regarding its implementation, by not setting any penalties for those institutions that would not apply it and,

above all, by not financing in any aspect the accounting reform. This conclusion can be deducted from the existence of only one formal document (dated 9/11/2001) prepared by the Ministry of Education and addressed to the supervised Universities regarding the reform”.

As it is obviously seen, the irony involved is that the PD 205/98 was issued in 1998; the HEIs were obliged to implement the accrual basis accounting system by January 1, 2000 while the Ministry of Education issued the formal document mentioned above in November 2001 (Venieris & Cohen, 2004).

5.2.3.2 The accounting reform process

The critical parameters indicated by Venieris and Cohen (2004) in the development process of this new accounting framework were the intensive time and the top-down approach of the consultant team. The consultant team was working under a very tight time schedule for the preparation of the accounting framework. As a result, the parties being directly involved did not make any contribution to this as their co-operation and commitment was not secured. The members of the team managed to hold a limited number of meetings with the public institutions acting as pilots in order to gain a broad understanding of their characteristics. The procedure followed by the consulting team for the proposal of the accounting framework was a top down one. In addition, the accounting framework was proposed without the team considering the level of accounting knowledge and education of the staff employed in the accounting departments and the existing IT problems both software and hardware.

5.2.3.3 Operationalization

As it was expected, the new financial procedures in the HEIs received the scrutiny and the critique of the interested parties with respect to the way and range of application. According to Venieris and Cohen (2004) the focus of the Accounting Blueprint was not well determined respectfully to MA. The authors (Venieris & Cohen, 2004) provided the reason for this was the fact that a limited number of costing ratios was actually proposed to facilitate management control and the measurement of performance aiming in relating inputs to outputs and providing a full cost figure of the services offered to the public. However, these ratios omitted to consider in the analysis any quality factors such as performance indicators with reference only to quantitative issues. Further, the development of the SAPOPS was for the most part based on the private sector's accounting plan while great emphasis was placed in pairing the accounts of both the accounting systems, accrual and cash basis. The SAPOPS was oriented explicitly towards the financial accounting aspect as it did not contain any characteristics of MA that would facilitate the public sector's accountability and accordingly the measurement of the performance. The published accounting reports were the only source of data for the purpose of measuring performance. In SAPOPS the accruals and asset's valuation followed the private sector accounting principles without considering the peculiarities and in the public sector and more particularly those of the HEIs (Venieris & Cohen, 2004). Following, during the fiscal year 1999, university of Piraeus and the TEI of Athens were chosen to act as pilots (experimentally) for the implementation of the accrual basis system with the intention to expand its implementation in all the HEIs and the TEIs of the country during the following fiscal year (Papadeas, 2008). The lack of customisation of the newly implemented accrual basis accounting system to the needs

of the public sector became explicitly evidenced when the pilot HEIs mentioned above attempted to prepare financial statements under the new accounting system. One of the multiple side effects was the lack of guidelines for the treatment of issues such as for example, the calculation of the depreciation for assets. Additionally, the costing of services was not considered and dealt with at all (Venieris & Cohen, 2004). Also, Zorgios et al. (2003) have argued that the accounting treatment and monitoring of the budget of the public sector entities, as outlined in the PD 205/1998 portrays the following disadvantages:

- A weakness in providing accounting information internally from senior accounts of the Government Accounting system.
- A lengthy development of the account codes in group 0 and inconsistency with regard to the financial accounting accounts in the case where additional information is required.
- Lack of a coordinating-supporting framework for the matching of the financial accounting accounts and the Government Accounting and the implementation of the accrual basis system in general.

5.3 From 1999 onwards

In the NBR of 2000 the problems faced by the majority of the public entities implemented the accrual accounting have been recognized and imputed mainly to the lack of knowledge and experienced personnel (NBR, 2000, p.131). It is also highlighted the aim of the Ministry of Finance to continue towards the improvement of the effectiveness and accountability of the public entities through the use of the accrual accounting system (NBR, 2000, p. 135). Based on this view, the explanatory reports of

the NBRs of years 2000 (p. 136) and 2001 (p. 8) suggest that the allocation of subsidies from the year 2000 onwards would be performed on the basis of the public sector entity's performance and that indicators were to be applied for the measurement of the performance (i.e. operating revenues to operating expenditure). However, no reference was made from the year 2002 onwards on the accrual accounting implementation. Additionally, in the NBR of 2002 (p. 84) it is stated that "the analysis of the economic figures of the public entities being subsidised has indicated the successful results in terms of the rationalization of subsidies in the last years". This statement implies the lost interest in the implementation of the accrual basis accounting system as shown in the yearly NBR as there was no further dedication to the original goals based on which the accounting reform was triggered (Venieris & Cohen, 2004).

5.4 Analysis and findings

As it is mentioned, this chapter seeks to present the structure and layout of the Greek higher education system and to investigate the external environment in which the Greek HEIs operated during the decade 1998-2008. In turn, this chapter aims to reach the analysis of the environmental determinants through an institutional approach, in order to deeply understand the institutional dynamics of the external HEIs' environment that have influenced the adoption of the accrual accounting system within them. Furthermore, the extent to which the Greek HEIs have responded to these institutional pressures will be examined and analyzed in terms of the type and category of each individual institution.

In particular, as presented above, the Greek legislator (P.D. 205/98) attempted to reform the HEIs' financial accounting system from a cash basis to an accrual basis which is the prominent accounting system in the private sector. According to Papadeas (2008) in Greece, the HEIs should have implemented the accrual basis system in parallel with the cash basis system. This was considered as being a procedure that would improve the ability of public sector entities to provide transparent and comparable accounts (financial reports) and in turn it would make them more accountable regarding the undertaking of a particular project or the fulfilment of a particular obligation (accountability). The perception about the cash basis accounting system was that it was efficient in the control of receipts and expenditures. In addition, it was part of a mechanism set by legislature for the purpose of controlling public funds but with a significant limitation being its incapability to provide management information. The aim of the reform was to transfer private sector like accounting and management principles and techniques to the public sector. The basic assumption was that private sector like techniques are indeed useful and applicable to other settings without further proof. Nevertheless, in reality, and even today, it is due to a plethora of problems that the majority of the HEIs have not implemented the SAPOPS (Papadeas, 2008). According to Kyriazis and Asderaki (2008), Law 1268/1982 was the main legal instrument that regulated the Greek HE sector for almost 25 years. However,

“its fragmentary modifications and its validity for such a long period of time caused problems in the higher education area. At the same time, a large number of presidential decrees and ministerial decisions led to the formation of a complex acquit educative”. (Kyriazis & Asderaki, 2008, p.41)

Papadimitriou (2011) also indicated that:

“As organizations, universities have been characterized as complex. The legal/political context in which Greek universities operate describes the degree of complexity under which these universities exist. The legalistic tradition indicates a system subject to a plethora of laws and regulations established by a highly politicized state bureaucracy....” (p. 149).

It is also highlighted the governments' interventions on HEIs spending which in combination with the socio-economic structures of Greece, have maximized the existing contrast between the academic and financial autonomy of HEIs as the high academic autonomy has never been matched by equally high financial autonomy. Instead, spending of HEIs was tightly controlled by the Ministry of Finance, not even the Ministry of Education (Gouvias, 2012). In addition, never was given the appropriate competences to the HEIs' leaders so that they effectively manage institutions' financial aspects (Kyriazis & Asderaki, 2008). According to Papadimitriou (2011, p. 150)

“The Greek Government stated that the country's European perspectives need to be based on the introduction of competitiveness in all spheres of economic, educational, and social life. However, entrepreneurialism and the adoption of modern ideas in education create fear of the unknown, scepticism, and sometimes strong cultural opposition; the over-riding idea that education is a public good has strong advocates, which comes from deeply seated roots in Greek's political culture” .

However, contradictory views have characterized the Greek HEIs as unable to respond to the changing social environmental demands, on the one hand, while, on the other hand, statements have opposed to this by supporting their willingness and ability to meet challenges. Those contradictory views reflect the complexity of the Greek higher

education environment (Papadimitriou, 2011) and the difficulties in explaining the external institutional dynamics which enacted the adoption or not of the accrual accounting in the Greek HEIs. Indeed, Venieris and Cohen (2004, p. 200) in concluding their study stated that “This paper presents the odyssey of introducing accrual and management accounting to Public Universities in Greece”. Actually, their study (Venieris & Cohen, 2004, p. 200) indicated that “This accounting reform that was initiated in 1996 has not yet progressed to a considerable extent”.

5.4.1 Isomorphic pressures

With respect to the theoretical framework developed for the scope of the study, the current chapter adopted a NIS approach in order to investigate and explain the enacting institutional dynamics towards the accounting change experienced in the Greek HEIs. Isomorphic forces such as coercive, normative and mimetic forces and their key role will be explained thoroughly through the particular elements of the external environment in which the Greek HEIs operates. These elements have been described analytically in the above sections from a critical view based on the extent literature review of the existing studies and the official documents with respect to the research problem.

5.4.1.1 Coercive force

As theoretically has been discussed, coercive pressure may exerted by regulations and laws such as the P.D. 205/98 that are enforced by environmental agents such as the Greek government that have sufficient power to impose structural forms and/or practices on public subordinate organizations such as the Greek HEIs conforming thus

institutions (Papadimitriou, 2011). Indeed, the coercive pressure in the current study is exerted by the P.D. 205/98 and legal documents relating to adoption of the accrual accounting system by Greek HEIs until 2001. With respect to all the arguments mentioned above, as it has been written consistently, there was no pressure from the state for enacting the accounting change and adopting the accrual accounting system by HEIs. In particular, the content of the NBR was favourable towards the issue of account reform in the public sector. On the other hand, this issue did not receive the appropriate interest in this particular period as it was not considered to be a meaningful and essential change. Venieris and Cohen (2004, p. 195) claimed that “As there was no external pressure towards change the Universities did not have internal motivation to work in this direction”. The only, formal coercive pressure exerted by the legislator (P. D. 205/98) demanding HEIs to reform their financial accounting system from a cash basis to an accrual basis accounting system. According to Venieris and Cohen (2004) at a certain point in time, the Greek government called HEIs to undergo the accounting change. Initially, and at the same time with the launching of the Accounting Blueprints, the Ministry of Finance carried out only a limited number of official presentations for the purpose of informing the public organisations involved. In fact, only one of these official presentations was allocated to HEIs. This was a strong sign that the Ministry of Finance could not play the required critical role in the process of leading change. The Ministry of Education supervises HEIs and it did share the same degree of interest in the progression of this change as the following statements:

“However, the Ministry of Education did not exercise any pressure on Universities towards implementing the new scheme.....Despite this, the Ministry of Education did not show any interest in the accounting reform” (Venieris & Cohen, 2004, p. 192).

Furthermore, as it is already mentioned, from the year 2000 and especially 2001 onwards there was no interest or even reference, in the NBRs, despite the fact that although the deadlines were getting close to expiration, only a few HEIs had undertaken the adoption of the P.D. 208/1998 and the implementation of the accrual accounting system. The rationale behind this position was that at that time the problem of control over subsidies seemed to have been solved by other means. Thus, the pressure towards the implementation of the accrual basis accounting system and the introduction of management accounting to HEIs was deducted. Venieris and Cohen (2004, p. 199) in their study resulted that:

“The deadline for the implementation of the P.D. 205/98, regarding accrual accounting, expired at the beginning of 2000 and only a minority of Universities complied..... This meant a de facto postponement of the introduction of the new accounting system and, as no official interest was shown, this postponement was sine die”.

In addition, they stated that:

“According to the survey data of July 2000 only two out of the 17 Universities had implemented an accrual basis accounting system that co-operated or ran parallel to the State Budget Administration System. This finding is not surprising, taking into account the lack of any pressure imposed on Universities by the Ministry of Education and the fact that the University Administrators did not consider it as a priority issue” (Venieris & Cohen, 2004, p. 195).

Finally, coercive pressure did not seem to play a significant role in the decision of the pilot public entities such as the two universities mentioned above to adopt the accounting reform and to implement the accrual accounting system since this action was made voluntarily. As the following statement supports:

“The introduction of accrual accounting was welcomed by several public entities, some of which volunteered to be the pilot institutions to implement the reform” (Venieris & Cohen, 2004, p. 188).

All the above statements remarked the accounting change progress in 2002, six years after the initial promotion of the idea of accounting reform to the subsidised public organizations, including HEIs in 1996. They reflect the absence of the coercive force which would enact the progression towards the accounting reform and the enforcement of the accrual accounting system in HEIs.

5.4.1.2 Normative force

As it is already discussed, normative pressure makes organisations feel and acknowledge the obligation to adopt structures, systems and processes that have been advocated by dominant occupational and professional groups (Burns, 2000; Scapens, 1994). The normative pressure may alike coercive pressure be encouraged, or not, by the government. However, its ability to influence organizational behaviour derives from seeking conformity and shared understandings of what is proper in the organization. According to Venieris and Cohen (2004) in the Greek case the accounting reform has been attempted within a frame which was characterized by time pressure and constrains, political rejection and inefficient planning and management. According to

Venieris and Cohen (2004, p. 201) “It is obvious that the key factors necessary for the successful introduction of change were not present during the implementation of the accounting reform in Greek Universities”. Further, they claim that

“From the analysis presented it is clear that the strategy of accounting reform in Greek Universities was conceived in a narrow frame, with little investigation of the effects of its application on the organisations involved and without profound reference to the problems and the contradictions that might occur” (Venieris & Cohen, 2004, p. 201).

As the accounting framework was developed without the participation of the HEIs representatives, it was provided with features deriving from traditional accounting reports and financial criteria for private sector performance measurement. Indeed,

“The development of the accounting reform framework was carried out solely by the members of the consulting team..... Only a few meetings with pilot public institutions were held in order for team members to understand in broad terms their characteristics” (Venieris & Cohen, 2004, p. 188).

Actually, no attention has been paid to the complexity of the universities’ performance measurement. In order to successfully assess and evaluate their performance, both quality indicators and financial criteria should be considered. According to the new accounting system, only the financial criteria were used for assessment purposes based on an accounting model exclusively suitable for the private sector, without any consideration and interaction with the public sector organizations concerned and particularly the HEIs. According to Venieris and Cohen (2004, p. 188):

“It is worth mentioning that the improved quality of public services or the ‘customer’ satisfaction were not mentioned as goals of the new system, as it has happened elsewhere.....”

The authors also mentioned that:

“The lack of customisation to the public sector’s needs soon became obvious when the pilot Universities tried to prepare their first balance sheet, and there were no guidelines regarding, for example, the method for calculating the depreciation of assets” (Venieris & Cohen, 2004, p. 191).

Finally, they noticed that “Furthermore, the issue of service costing, which is important for performance measurement, was not dealt with” (Venieris & Cohen, 2004, p. 201) and resulted that “However, the new system never gained the necessary confidence that could facilitate its implementation” (Venieris & Cohen, 2004, p. 192). The above discussed statements show that no normative pressure was persuaded by the actors such as the HEIs. The government encouraged by the law (P.D. 502/1998) the adoption of the accrual accounting system without ensuring the enforcement of the normative force.

5.4.1.3 Mimetic force

It is claimed that mimetic behaviour has an element of conformity according to which contemporary practices are being adopted by organisations in their effort to legitimise their structures, systems and processes (Scapens, 1994). In other words, there is a tendency according to which organisations copy others that are more legitimate, more successful either from the same field or outside their organisational field given that are of similar complexity to themselves. In this vein, the mimetic pressures imposed by the governments can also arise from the drive to reduce uncertainty. Through this type of

pressure the Greek government, for instance, encouraged by the law (P.D. 502/1998) the implementation of the accrual accounting system in the HEIs, imitating thus the publicly known as best practise for successful organizations of the private sector similarly. In a similar way, the Greek HEIs would be willing to copy the publicly known best practices such as the accrual accounting system modelling themselves after other similar HEIs perceived as being more legitimate or successful or other organizations perceived as being similar in complexity. However, the existed literature has not proven any sign of mimetic force enacting the HEIs towards the implementation of the accrual accounting system. According to Papadimitriou (2011) for the later adopter of a process it is possible that the adoption implies a mimetic pressure due to the shared knowledge about the benefits and the rationale of the implemented process from early adopters. In particular, in the case of the Greek HEIs neither the legal framework by own nor the initial implementation of the new system by the pilot universities could enforce the mimetic force, as no shared knowledge of the benefit and the appropriateness of the new system was approved. As it is mentioned above:

“The lack of customisation to the public sector’s needs soon became obvious when the pilot Universities tried to prepare their first balance sheet,” (Venieris & Cohen, 2004, p. 191).

Summarizing, from the above arguments based on a strict investigation of the existed literature, it is assumed that no one of the isomorphic forces have been strongly activated by the external environment in order to press the HEIs forward the adoption of the accounting reform demanded by the legislator (P.D. 205/1998). An overview of the progression of the accounting reform since the law was valued until the year 2008

will follow supporting the above implications. Furthermore, the analysis of the presented data will be attempted according to the types and the categories of the HEIs providing thus a detailed description with numerical terms and percents of the current situation.

5.4.2 Survey findings: an overview and analysis

This section provides a descriptive overview of the main findings regarding the accrual accounting system implementation in Greek HEIs. This description refers to several aspects regarding the time and the extent of accrual accounting system implementation in Greek HEIs during the decade 1998-2008. The data from the previous studies conducted in relevant issues has been used to provide features of each individual HEI accordingly to their response to the external institutional forces that have been examined and analyzed in the previous section. The number of HEIs taking place in the current study will increase to 38 HEIs, including 22 universities and 16 TEIs. The International Hellenic University will be excluded as it started operating during the period that the current study was conducted. Also, the School of technological and pedagogical education is included to the total number of the TEIs, without any reference to it as a particular entity.

According to Papadimitriou (2011), universities in Greece could be categorized with respect to parameters such as age, size and location. The author classified Greek universities in terms of the period of their foundation, as old and new ones; in terms of the number of freshman students as small, medium and large universities and in terms of location as urban and peripheral. Thus, in terms of age, there are two groups of

universities, old (1837-1982) and new (1982-2006). According the number of new students allowed to enrol in each university three size categories of universities for freshman (undergraduate) students are distinguished: small, below 1,000; medium, 1,001-3,000; and large, over 3,000. Finally, in Greece, the only cities with over 1,000,000 habitants are Athens and Thessaloniki. Following the ministry's distinctions, universities are "urban" if located in Athens, including the city of Piraeus, and Thessaloniki. All others universities are known as peripheral. In the same line with Papadimitriou (2011) the classification of the Greek HEIs for the scope of this study will be drawn upon the age, the location and the size of each individual HEI. Thus, according to age, the HEIs are mapped into two categories, old (1837-1982) and new (1982-2008) as Papadimitriou (2011) similarly defined them. According to the location, also, two categories of HEIs are addressed such as urban (Athens, Piraeus and Thessaloniki) and peripheral. However, the size of each individual HEI will be determined in accordance to the total student population referred to the academic year 2008-2009. In particular, as small are characterized the HEIs with student population less than 5.000 students, as medium the ones with a student population of 5.000-10.000 students and as large the ones with student population of more than 10.000 students. This categorization has been considered as being the most accurate presenting the real size of the HEIs respectively to the total number of students that are enrolment in each individual HEI. The total enrolment students have been considered as reflecting a parameter that characterize each individual HEI and is not be affected by the number of freshman students that is defined every year by the ministry of education. The following table (Table 5.6) presents the categories of the HEIs as they have been mentioned above in accordance to the type and the number of the HEIs. It is obvious

that the majority of HEIs are old (66%) while a smaller number of them (34%) have been founded after the year 1982. However, the foundation of most of the universities is backdated when compared chronically to the above categorisation (Tables 5.2 and 5.4) as the majority of the TEIs were established from 1973 onwards. Furthermore, the majority of the HEIs are peripheral (63%). It is worthwhile to mention that there is a large difference between the percentages of urban (25%) and peripheral (75%) TEIs as this trend is contradictory to the respective trend for universities as they are divided nearly equally. This is due to the fact that in each city or town there is only one established individual TEI operating thus, most of them are found in the periphery. In the same way there is only a small percentage (19%) of large TEIs while the majority of them are medium (50%) or small (31%) due to the fact that they operate in the periphery and this is contradictory to universities which seem to be balanced better accordingly to their size.

Category	Number of Universities	(%)	Number of TEIs	(%)	Number of HEIs	(%)
Age						
Old	14	64%	11	69%	25	66%
New	8	36%	5	31%	13	34%
Location						
Urban	10	45%	4	25%	14	37%
Peripheral	12	55%	12	75%	24	63%
Size						
Small	8	36%	5	31%	13	34%
Medium	8	36%	8	50%	16	42%
Large	6	28%	3	19%	9	24%
Total	22		16		38	

Table 5.6: Categorization of HEIs (Author's own).

In the current phase the number of HEIs that fully implemented the accrual basis accounting system ten years after the voting of the P.D. 205/1998 has been investigated. The investigation was conducted by a telephone survey asking for the implementation of the accrual accounting system in HEIs. During the survey the Directors of financial departments were asked to answer whether their institution has put in action the use of the accrual accounting system, in terms of accrual financial accounting and cost accounting full implementation and if yes, the starting year of the implementation. From the survey has found that, out of a total of 38 HEIs, including universities and TEIs, only eleven HEIs had adopted the implementation of the accrual accounting system; seven of them are universities and four are TEIs. The remainders have not so far implemented the accrual basis accounting system or they have instead adopted a partial implementation of this system. The following figure (Figure 5.1) presents the total number of HEIs according to the implementation of the accrual accounting system and their type during the year 2008.

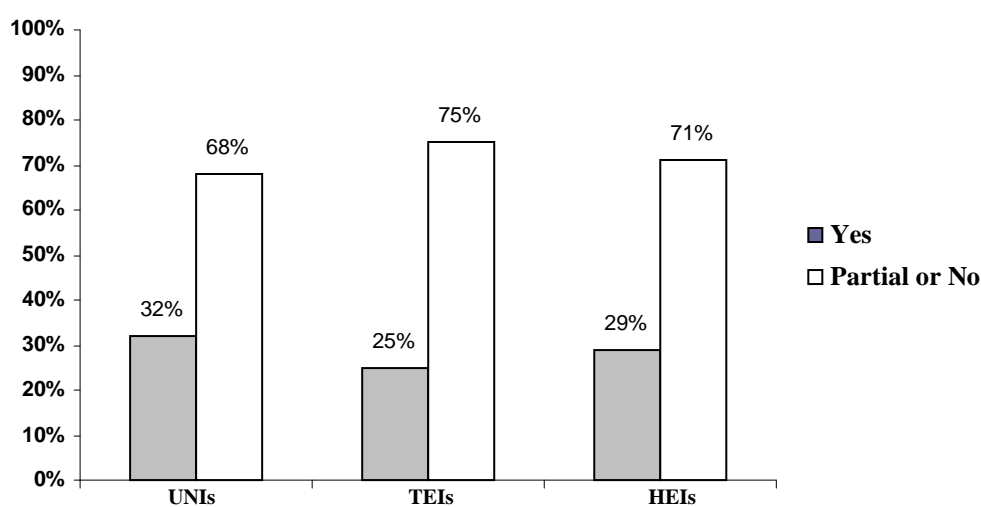


Figure 5.1: Implementation of accrual accounting according to the implementation's and HEIs' type (Author's own).

It is clearly shown that only a small percentage (29%) of HEIs have completely used and fully implemented the accrual accounting system even though it has now been ten years since the law has been valued. More specifically, the percentage of implementation is lower regarding the TEIs (25%) while universities (UNIs) show a higher percentage (32%) of implementation. It is worth noting that the percentage of the universities that have not so far fully implemented the accrual basis accounting system is two times higher than those that have implemented the new system and in the case of the TEIs the respective percentage is three times higher.

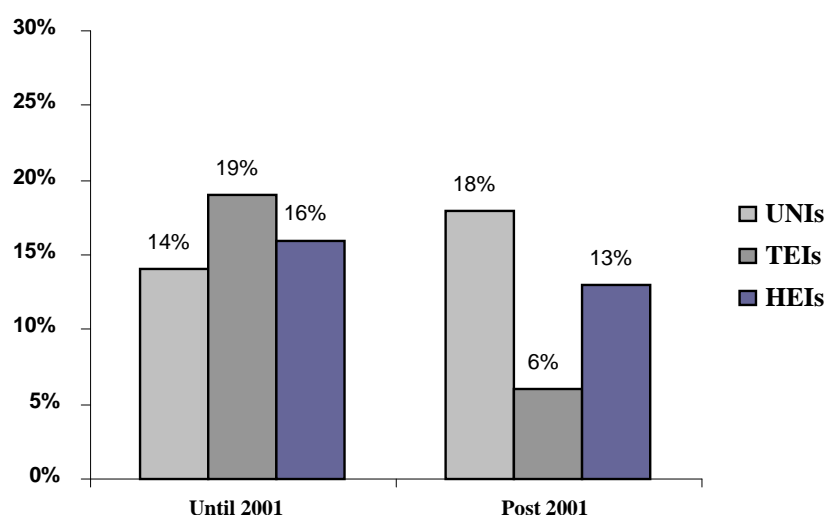


Figure 5.2: Implementation of accrual accounting according to the starting year and HEIs' type (Author's own).

Expanding the process of inquiry regarding the extent of the implementation of the accrual basis accounting system, the starting year of the implementation has also been investigated with the findings being presented in figure (Figure 5.2). It is obvious that until 2001, when the deadlines for the implementation of the accrual basis accounting system were expired, only a percentage of 16% of the HEIs had implemented the new system while from 2001 onwards this percentage becomes lower (13%). However, this is due to the majority of the TEIs that implemented the new system (19%) and started

the implementation process prior to 2001, while only a percentage of 6% started after 2001. On the other hand, universities (UNIs) seem to be falling behind with only 14% having started prior to 2001 and 18% that started after 2001. This needs to be considered regardless of the fact that UNIs have a higher total percentage of full implementation (32%) than the respective percentage for the TEIs (25%).

According to the categorization of the HEIs as it was mentioned above (Table 5.6) the following table (Table 5.7) presents the types of the HEIs that implemented the accrual basis accounting system according to their age, location and size.

Type	Old	New	Urban	Peripheral	Small	Medium	Large
U1	v		v			v	
U2		v		v	v		
U3		v	v		v		
U4	v			v			v
U5	v		v				v
U6	v			v			v
U7		v		v	v		
UNIs	4	3	3	4	3	1	3
T1	v		v				v
T2	v			v		v	
T3	v			v		v	
T4	v		v		v		
TEIs	4	0	2	2	1	2	1
HEIs	8	3	5	6	4	3	4

Table 5.7: The classification of the implemented the accrual accounting system HEIs according to the age, location and size (Author's own).

Respectfully to their anonymity, the eleven HEIs which have implemented the new system are named as U1, U2, U3, U4, U5, U6 and U7, while the TEIs as T1, T2, T3 and T4. The table shows the characteristics of each individual HEI according to their age, location and size, as well as, the total number of them respectively to their type and their characteristics. It is obvious that those that the HEIs that implemented the accrual basis accounting system belong mainly to the “old” (8 HEIs) while the location and size seem not to play a profound role as they are nearly equally divided into these categories. The results of the table 5.7 are described separately in the following figures (Figures 5.3, 5.4 and 5.5). These figures show the respective percentages of the HEIs that implemented the new system according to each of the categories.

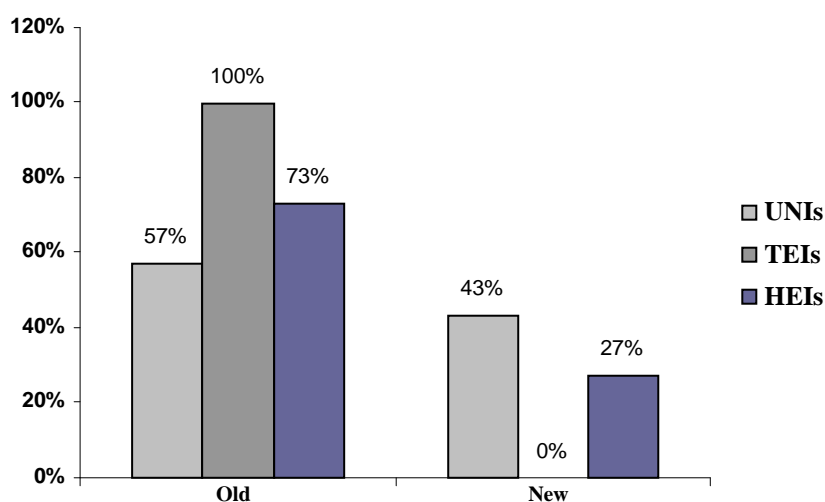


Figure 5.3: Full implementation of accrual accounting according to the HEIs' type and age (Author's own).

According to their age (Figure, 5.3) it is clear that the majority of the HEIs that implemented the new system have fallen into the category of the “old” (73%) while a low percentage of the “new” HEIs (27%) have implemented the accrual accounting system. This is due to the percentage rather of the TEIs which are all “old” (100%) than

to the percentage of universities which are presented by a lower percentage in the “old” category (57%). However, the percentage of the “old” universities is also higher than the one of the “new” universities (43%).

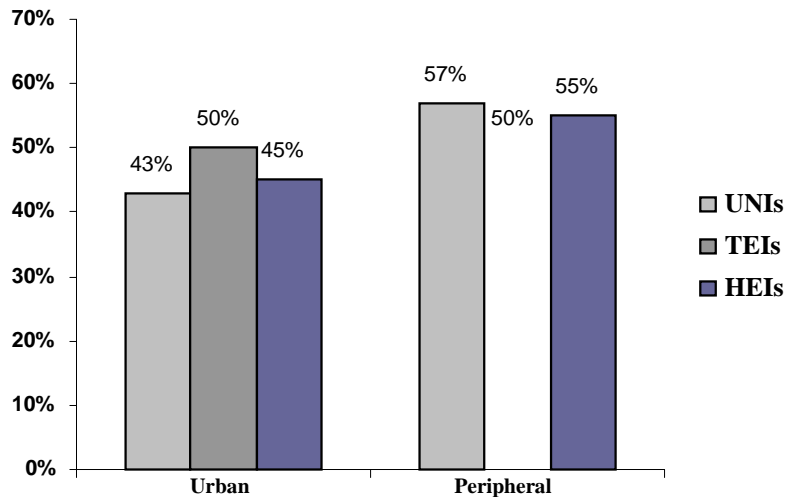


Figure 5.4: Full implementation of accrual accounting according to the HEIs' type and location (Author's own).

Figure 5.4 presents the percentage of HEIs that implemented the new system according to their location with the “peripheral” category presented by a higher percentage (55%) than the “urban” category (45%). Universities’ percentage seems higher for the “peripheral” category (57%) than for the “urban” category (43%) while the TEIs are equally divided into both categories. The last figure (Figure 5.5) shows that equally “small” and “large” categories of HEIs that implemented the new system (36,4%) while the “Medium” HEIs seem to be more reluctant towards implementation (27,2%). In particular, universities in the “small” and “large” categories portray a much higher percentage of implementation (43%) than the “medium” universities which present nearly one-third of this percentage (14%). On the contrary, the “medium” TEIs present

twice as much rate of implementation of the new system (50%) than those of the “small” and “large” categories (25%).

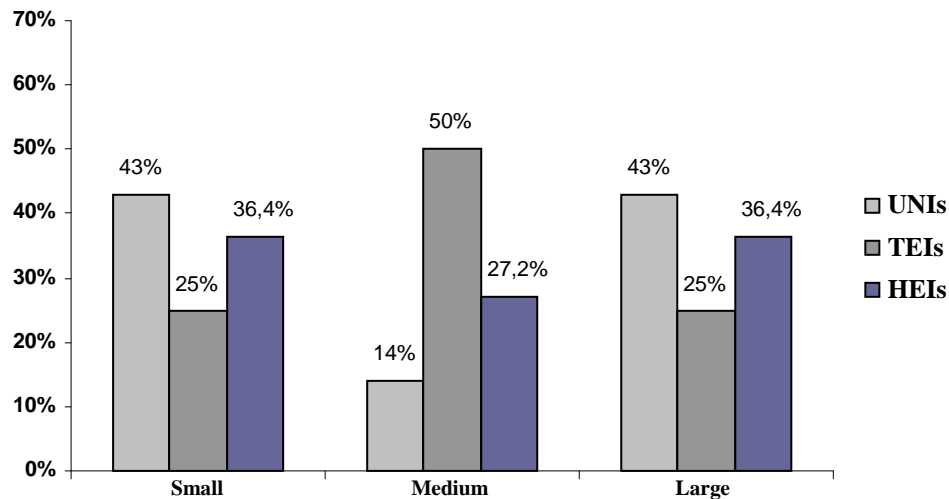


Figure 5.5: Full implementation of accrual accounting according to the HEIs' type and size (Author's own).

Based on the above percentages, it is resulted that the majority of the universities that implemented the new system are “old, peripheral and small or large” while the TEIs are “old, urban or peripheral and medium”. These percentages are estimated as mentioned above according to the number of each type and category of HEI that implemented the accrual basis accounting system. However, the last figure (Figure 5.6) presents the types and categories of the Greek HEIs which implemented the accrual basis accounting system according to the total number of them. The percentages in this figure show that it is mainly “new” (32%), “peripheral” (33%) and “large” (50%) universities that implemented the accrual accounting system. Specifically, the difference in percentages is larger in the case of the category of size as the percentage of the large universities is quite higher (50%) when compared to the others (small, 38% and medium, 13%) in this category.

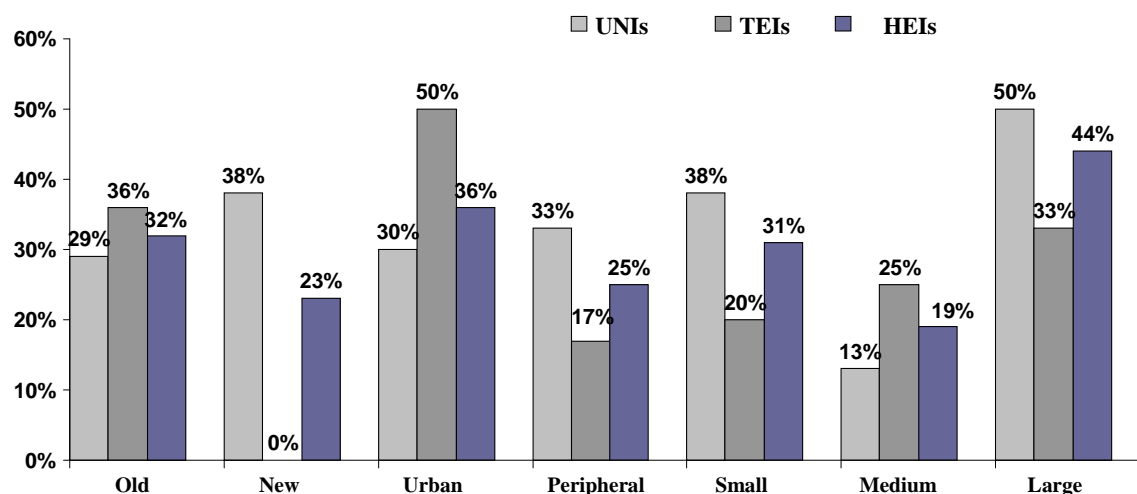


Figure 5.6: Full implementation of accrual accounting according to the HEIs' type and category (Author's own).

On the other hand, the percentages according to the TEIs show that mainly “old” (36%), “urban” (50%) and “large” TEIs implemented the accrual basis accounting system. Especially, the difference in percentages is greater in the case of the categories of size and location. Only old TEIs implemented the accrual accounting system while the percentage for the urban TEIs (50%) is quite higher than the percentage of the peripheral TEIs (17%). Finally, the total percentages of the HEIs that implemented the accrual basis accounting system were “old” (32%), “urban” (36%) and “large” (44%). The above results are presented briefly in the following table (Table 5.8).

Type	Age	Location	Size
UNIs	New	Peripheral	Large
TEIs	Old	Urban	Large
HEIs	Old	Urban	Large

Table 5.8: The HEIs that implemented the accrual accounting system according to age, location and size (Author's own).

The above presented findings and the analysis attempted so far confirm alike the analysis of the isomorphic pressures that were exerted by the external environment based on the extent investigation of the existing literature. The findings related to the extent of the implementation of the accrual basis accounting system in the Greek HEIs presented in figure 5.2 indicate that the coercive forces that were exerted by the Greek government have slightly influenced the implementation of the new system as only 29% of the HEIs responded to the attempted accounting reform. Furthermore, the achievement of a higher percentage (16%) for HEIs that implemented the new system until 2001 as compared to those (13%) that implemented the new system after 2001 (Figure 5.3) shows no signs of normative forces influencing the implementation of the new system. It would be expected that the existence of normative pressures should result in the increase of the percentage of the later adopters of the new system. However, there is no evidence of such findings. According to the mimetic forces they might be associated with one of the HEIs' categories namely the size. As it is presented in table 5.8 all the HEIs that implemented the new system have fallen into the category of "large". Thus, it is derived that only large HEIs has been enforced by the mimetic mechanism related to the adoption of the accounting change. This is expected to be explained by the activation of the appropriate intra organizational dynamics which will be examined and furthermore analyzed in the next chapter.

5.5 Summary

As it has already been mentioned, the aim of the current chapter was to answer the following research questions:

1. To what extent did government exert pressures on the Greek HEIs to change their existing MA system, for example to implement the accrual accounting system?

2. To what extent did Greek HEIs respond to the isomorphic pressures to change their existing MA system, for example to implement the accrual accounting system?

Therefore, this chapter presented the structure and the layout of the Greek higher education system and investigated the external environment in which the Greek HEIs operated during the decade 1998-2008. In turn, this chapter reached the analysis of the environmental determinants through a NIS approach, in order to deeply understand the institutional dynamics of the external HEIs' environment that have influenced the adoption of the accrual basis accounting system within them. Furthermore, the extent to which the Greek HEIs have responded to these has been examined and analyzed in terms of the type and category of each individual institution. In particular, the first section has provided a brief description of the Greek higher education structure and a historical setting of significant reforms that have taken place concerning specifically issues of funding and accountability as well as public management issues. The aim of the first section was the governmental and legal framework wherein the Greek HEIs operated during the decade 1998-2008 and influenced their governance and management decisions to be discussed. Further, the legal framework was considered as a key factor since it was defining not only the mission of the Greek HEIs but also the daily practices within the organization such as the accrual basis accounting system. According to Katharaki and Katharakis (2010, p. 116):

“Greek universities are government owned and largely funded by the Greek state. Thus, they are constitutionally defined as public institutions and enjoy de jure institutional autonomy. The Rector’s Council only decides on miscellaneous items in certain categories. National legislation determines university budgets, procurement, financial oversight and employment”.

or according to Papadimitriou (2011, p. 149)

“Based on the above, and since all Greek universities have been awarded permission to operate by the Ministry of Education, the Ministry is functionally equivalent to an accreditation agency that generally defines standards for the operation of Greek universities” .

Therefore, the significant determinants of the external environment have mainly been investigated such as the state funding of the Greek HEIs and accountability as they relate to the current and to public management issues. In turn, the second section, based on the relevant literature, has provided the progression of the governmental attempts towards the accounting reform and the adoption of the accrual accounting system by HEIs since 1996 when the idea of the accounting reform was stipulated and until the legislation (P.D. 205/1998) was passed. Further on criticism, according to politics, procedural and operationalizational issues have been considered as major elements and data providers towards the provision of further analysis and explanation from a NIS approach. The third section continued with a further examination of the progression of the accounting reform from 1999 onwards. The fourth section of this chapter reached the analysis of the environmental determinants through a NIS approach, in order to facilitate a deeper understanding of the institutional dynamics of the external HEIs’ environments that have influenced the adoption of the accrual basis accounting system within them. The analysis and findings have been revealed by strictly examining the

existing literature based on previous empirical studies and official documents related to this research problem.

Literature analysis provided evidence that the accounting reform in Greek public sector, including the higher education sector, in accordance to the legislation (P.D. 205/98) demanded the application of the accrual accounting system based on a sectoral accounting plan focusing on the maintenance and issuance of proper documentation regarding financial, cost and budget accounting. The implication of this section is in the same line with the statement that has been posed by Venieris and Cohen (2004, p. 2001): “This accounting reform that was initiated in 1996 has not yet progressed to a considerable extent”. The authors (Venieris & Cohen, 2004, p. 201) ended their study with the crucial statement that “The effort of just transplanting a system already developed under other circumstances did not succeed in the case of Greek Universities”. Even ten years later after the initial attempt of the accounting reform that was introduced by the law (P.D. 205/1998), the extension of the implementation of the accrual basis accounting system in the Greek HEIs remained inefficient reflecting thus the unsuccessful attempt made by the Greek government. It is said that the adoption of accounting innovations from public organizations is highly influenced by the governmental policy (Papadeas, 2008). However, it is questioned whether the legislator would guide the adoption of the required change by itself (Papadimitriou, 2011). Indeed, from the above analysis it is derived that even though law (P.D. 205/1998) was enacted by the Greek government, it did not lead to the efficient adoption of the required such as the adoption of accrual basis accounting system by the HEIs. In particular, the coercive force that may be exerted by the law did not seem to play a key

role in the adoption of the accrual basis accounting system by the HEIs. The only formal, but lightly coercive pressure was the law (P.D. 205/98) which led to the reformation of the HEIs' financial accounting system from a cash basis into an accrual basis one. With respect to all of the arguments mentioned above, there was no pressure from the state for enacting the accounting change and for adopting the accrual accounting system on HEIs. Consequently, they reflect the absence of the coercive force that would enact the progression towards the accounting reform and the enforcement of the accrual accounting basis system in HEIs with exception the light coercive force exerted by the law. The normative pressure may also alike coercive pressure be encouraged, or not, by the government. The above discussed statements show that none normative pressure was perceived by the actors such as HEIs. The normative force and its ability to influence organizational behaviour derives from seeking conformity and shared understanding of what is proper for an organization. The government encouraged by the law (P.D. 502/1998) the adoption of the accrual accounting system, however, without ensuring the enforcement of the normative force. Finally, the existing literature has not provided any sign of the mimetic force enacting the HEIs towards the implementation of the accrual basis accounting system. In particular, it is obvious that neither the legal framework by own nor the initial implementation of the new system by the pilot universities could enforce the mimetic force, as no shared knowledge of the benefit and the appropriateness of the new system was approved.

The above implications are supported and confirmed by the extended analysis of the survey findings concerning the current situation and the extent of the implementation of

the accrual basis accounting system by the Greek HEIs. According to these findings, since the law (P.D. 205/1998) was passed only 29% of the HEIs implemented the new system and they have fallen into the categories of “old”, “urban” and “large”. The 32% of them are universities mainly new, peripheral and large while the 25% of them are TEIs mainly old, urban and large. In particular, only the 16% of the HEIs have implemented the new accounting system before the expansion of the determined by the law deadline in 2001, while the 13% have implemented the new system from 2001 onwards. A 14% of them were universities while the 19% of them were TEIs. Consequently, the findings support the analysis of the institutional forces according to which the coercive force seems to be existing lightly due to the legislator (P.D. 205/1998) but without any other kind of governmental pressure enforcing the adoption of the new system in HEIs initially or later on. Moreover, the findings support the absence of both the normative and the mimetic forces as the number of those HEIs that implemented the new system has not increased after the initial implementation of the former adopters. It is only a small percentage of (13%), which is smaller than the initial (16%) that has implemented the new system as neither the normative force has been activated due to the shared understanding of the appropriateness of the system or the mimetic force has been derived due to the absence of the normative force. Specifically, the only sign of mimetic force is shown in table 5.8 and it is associated with the category of ‘large’. As it is presented in table 5.8, all the HEIs that implemented the new system have fallen into the category ‘large’. Thus, it might be considered that it is only the large HEIs that have been enforced by the mimetic mechanism relative to the adoption of the accounting change.

Summarizing, from the above arguments, based strictly on an investigation of the existing literature and the analysis of the derived findings, it is assumed that isomorphic forces have been insufficiently activated by the external environment in order to push the Greek HEIs forward towards the adoption of the accounting reform demanded by the legislator (P.D. 205/1998). The only isomorphic pressure that initiated accounting change was the formal coercive force that slightly exerted by the law itself. There is also a sign of mimetic force and it is associated with the category of the “large” HEIs.

As it is mentioned, the above implications answer the research questions:

- 1. To what extent did government exert pressures on the Greek HEIs to change their existing MA system, for example to implement the accrual accounting system?*
- 2. To what extent did Greek HEIs respond to the isomorphic pressures to change their existing MA system, for example to implement the accrual accounting system?*

Furthermore, they will be used in the final chapter (Chapter 8) in order to be integrated and harmonized with the results derived by the empirical findings of the conducted survey and interviews and analyzed quantitatively and qualitatively in the following chapters (Chapter 6 and Chapter 7 respectively).

CHAPTER 6

Surveying of Management Accounting change

6.0 Introduction

The previous chapter (Chapter 5) shed light on the accounting reform which has been attempted by the Greek government through the law (P.D. 205/1998) and the isomorphic pressures which have been exerted towards the accrual accounting system implementation in the Greek HEIs. Specifically, the analysis of the environmental determinants has reached through a NIS approach, in order to deeply understand the institutional dynamics of the external HEIs' environment that have influenced the accrual basis accounting system adoption within them. The analysis of the extant literature and official government documents, as well as, the findings based upon previous studies are considered as being a valuable asset in the process of making inferences and providing answers to the research questions related to the macro- level institutional forces that have influenced the accounting reform attempted in Greek HEIs during the decade 1998-2008. Furthermore, the extent to which the Greek HEIs have responded to these has been examined and analyzed in terms of the type and category of each individual institution. However, the aim of the current study is to continue beyond a macro- level institutional analysis. That is, gathering knowledge on how MA change has been experienced by each individual HEI under the influence of intra organizational dynamics emerged on a micro- level within the organization. Thus, a micro- level analysis of the institutional and change dynamics activated towards the implementation of the accrual accounting and forming the response of each HEI will be

attempted. Nevertheless, a NIS perspective does not provide sufficient understanding to someone who wishes to investigate further and gain an understanding of what are the dynamics that shape MA organisational practices. According to Scapens (2006) MA practices and how these are shaped should be best studied inside the organisation. For this reason, this chapter presents and analyzes the findings of data collected via a structured questionnaire survey in thirty eight public Greek HEIs (universities and TEIs) regarding middle-management perceptions for the experienced MA change during the decade 1998-2008. In addition, findings of data collected has been analyzed mirroring the extent in which daily accounting practices have been adopted towards the full implementation of the accrual accounting system within each individual Greek HEI.

6.1 The institutional structure

Beyond the elements of the external environment in which the Greek HEIs operate, it is of major importance to present and discuss internal environmental elements that shape the organizational life of each HEI (Papadimitriou, 2011). It is claimed that the organizational model applied to the Greek educational system is a model that does not have predetermined options, the participation of various factors is unclear, technology is partially applied and management operates in an opportunistic manner. This is evidenced because of its main characteristic elements, which include the absence of control and the general organizational vagueness, as consequence of the continuously changing operational rules and regulations (Papadeas, 2008). The governance and the administration of HEIs are regulated by law and the specific internal regulations of each

HEI, both specifying the levels of academic and administrative structure and the respective governance bodies (Table 6.1).

Institutional Levels	University governing bodies	TEI governing bodies
Institution	The Senate	The Assembly
	The Rector's council	The TEI Council
	The Rector	The President
Faculty	The General Assembly	The Council of School
	The Dean's Council	The Principal
	The Dean	
Department	The General Assembly	The General Assembly
	The Board	The Council
	The President	The Head
Sector	The General Assembly	The General Assembly
	The Director	The Supervisor

Table 6.1: Institutional governance structure (adapted from Kyriazis & Asderaki, 2008, p. 108).

Regarding the academic structure, HEIs consists of Faculties, each Faculty consists of Departments and each Department consists of Sectors. The basic unit of HEIs is the Department, with the Sector concern a narrower field of the Department discipline, while the Faculty includes Departments with common disciplines. The Senate/Assembly supervises the good operation of the whole institution and determines the institutional policy, and strategy. It also approves the annual budget of the institution introduced by the Rector's Council/TEI Council. Rector's Council/TEI Council introduces to the Senate/Assembly and supervises various academic, administrative and/or financial issues. It is also the responsible body for the proper management and organization of the various administrative services. The

Rector/President is the formal representative of the each HEI and is accountable to the government and the society for HEIs' spending. Two Vice Rectors/Presidents support the Rector/President's duties. They are responsible for the academic, as well as, economic and administrative affairs of the whole institution respectively. The complexity of the above self-governing and administrative structure of the Greek HEIs has been criticized mainly for the following reasons:

- Commonly, the teaching and/or research staff involved in the governing bodies do not possess managerial and administrative knowledge and experience.
- Very often, there is lack of the necessary co-ordination between governing members and or/bodies for the effective governance and administration of the institution.
- Usually, various administrative and governing problems on institutional level are challenged due to the bottom-up character of the model which emphasises mainly to the decision-making process at the basic unit of the Department (Kyriazis & Asderaki, 2008)

The academics and the governing bodies of HEIs are supported by the administrative and financial, as well as, the technical services of HEIs which are responsible for the good operation of the institution at all levels. They consist of General Directorates divided to Directorates, which include financial Departments. The General Directorates and Directorates are responsible for the financial and economic aspects of the institution. The administrative and financial Directorates include financial Departments which are responsible for distinct issues regarding budgeting, payroll, supplies and cash flows. Financial Departments are concerned with the preparation and adoption of the

annual and long term budget, the preparation and provision of annual and short term financial reports, the valuation, recognition and management of receivables, payables, expenses and income, the cash and equivalent cash management and in general with the administration of all the economic aspects of the institution. The supervision and coordination of the all the above is responsibility of the HEI Secretary General who concerns the effective function of the entire institution with respect to the specific internal regulations and the standing legislation.

The administrative and financial General Directors and Directors, are considered as top management, responsible for the operation of the administrative and financial Departments under their supervision and control. In particular, they concern the legislation regarding the economic and financial issues, share information and directions among the supervised administrative and financial Departments and coordinate their appropriate application. The Heads of the administrative and financial Departments are supervised by and are accountable to the Director and also considered as middle-level managers responsible for the operation of the respective Department. Given the above governance and administrative construction of HEIs, an appropriate survey structured questionnaire was developed for the scope of the current study in order to collect flourish data concerning the experienced MA change in each individual Greek HEI during the decade 1998-2008.

6.2 Survey instrument

This survey has been conducted via a structured questionnaire. The questionnaire has been developed by considering existing questionnaires used in previous studies relevant

to the current study issues (Eriotis et al., 2011; FEE Public Sector Committee, 2007; Smith, 2007) as well as respectively to the analysis of results that derive from the first phase of the current research study. The questionnaire aimed to obtain information about the intra organizational dynamics regarding the accrual accounting implementation under the external institutional pressures. For this reason, the questionnaire criteria and the items and/or statements involved should enable the participants' perceptions towards this aim. The questionnaire developed consists of three sections. Section A contains six questions; three questions concerning information about the respondent institutions and individuals in order to secure the position and the knowledge of the respondents regarding the MA change experience; and three questions concerning the implementation of the accrual accounting system and the institutional forces pressuring/assisting for the adoption of the new system. Section B contains one question subdivided in forty-seven statements regarding the experienced MA change in each individual HEI. The statements explore:

- the encoding and motivation towards the implementation of the new system through the creation of need and readiness for overcoming of resistance to change,
- the enabling and management of change through acting planning, commitment and communication, and finally
- the reproducing and institutionalization of the new rules through the installation and evaluation of the new system practices.

The respondents were asked to answer the questions by choosing one of the alternatives on the side of each statement provided that best indicated the degree of their agreement or disagreement with each statement respectively to their view of the experienced MA

change. Finally, section C contains ten questions, subdivided totally in forty-five sub-questions, regarding the use of the accrual accounting and the new practices and routines that have been actually experienced on a daily basis and have been taken for granted. Furthermore, the purpose of this instrument was to gather qualitative data in a quantitative form, facilitating thus the statistical analysis. For this reason, questions and statements provided in a closed format on a five-point Likert scale ranging from “strongly disagree” to “strongly agree” and binary choices (e.g. yes or no). The survey structured questionnaire is presented in Appendix II.

6.2.1 Validity and Reliability Issues

Both validity and reliability of the research instrument are very crucial issues in the quantitative research. Saunders et al. (2009) have claimed that the collection of accurate data is being enabled by the use of a valid questionnaire. In addition, they claimed that a valid questionnaire is at the same time a reliable one, which caters towards the consistency of the data collected. Furthermore, Saunders et al. (2009) referred to Foddy (1994, p. 17) who discussed that:

“the question must be understood by the respondent in the way intended by researcher and the answer given by the respondent must be understood by the research in the way intended by the respondent”.

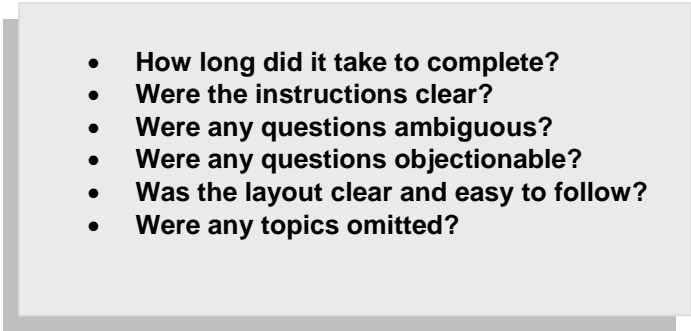
6.2.1.1 Validity

In any research study, validity is concerned with the reflection and assessment of the concept that is attempted to be measured by the researcher and the extent to which the research instrument measures what it intends to measure (Fink, 1995; Thorndike,

1997). Discussing the validity of a questionnaire, literature refers to the validity of the content, the criterion and the construct (Cooper & Schindler, 2008; Saunders et al., 2009). The concern of content validity is with the questionnaire's ability to adequately cover the questions under investigation. Construct validity is related with the extent in which the intended constructs are being measured by the questionnaire items. Finally, making accurate predictions by questionnaire items is the main concern of criterion-related validity. This type of validity could be undertaken via the use of correlation in statistical analysis (Saunders et al., 2009).

Given the fact that the present study has been undertaken in Greece, the research instrument used was translated into Greek and it was checked by two Greek professors of English literature. Then, the questionnaire was adapted and finally revised respectfully to their recommendations. The revised instrument was commended by an expert in management accounting and in the Greek higher education field on the representativeness and the suitability of the questions. Suggestions made on the structure of the questionnaire contributed to the establishment of content validity. In addition, a pilot study was conducted and the revised questionnaire was used (Creswell, 2003; Saunders et al., 2009). The pilot test's purpose was to ensure that the questionnaire possessed content validity and provided data that would be both meaningful and adequate. That is, whether the questionnaire appears to make sense and the language, terminology and the flow of the items could be easily understood. Additionally, the pilot test aimed to refine the questionnaire reducing thus wording ambiguity and potential confusion of each question (Saunders et al., 2009). In May 2008, the questionnaire was piloted with the help of five members of staff of financial

departments in Greek HEIs, two of them in universities and three in TEIs, having experience of MA accounting change since 1998. Participants in pilot study would not take part in the main survey. The reason for this was the research bias to be avoided due to their experience of answering the initial questionnaire (Phellas et al., 2011). Following the recommendations of Phellas et al. (2011), a list of questions was placed at the end of the questionnaire asking respondents about the questionnaire structure (Box 6.1). Finally, the questionnaire did not undergo any changes after the completion of the pilot study, as it was not required with respect to the answers of the related questions. All participants completed the questionnaire in less than 20 minutes. It is suggested that a questionnaire should be completed in less than 20 minutes in order to keep on respondents' motivation and interest (Smith, 2003).

- 
- **How long did it take to complete?**
 - **Were the instructions clear?**
 - **Were any questions ambiguous?**
 - **Were any questions objectionable?**
 - **Was the layout clear and easy to follow?**
 - **Were any topics omitted?**

Box 6.1: Questions placed in pilot study (adapted from Phellas et al., 2011, p. 197).

Construct validity in the questionnaire was ensured by using existing instruments from studies conducted in relevant research areas and the pilot study undertaken. Finally, both the construct and criterion-related validity of the used structured questionnaire have been tested via the application of statistical analysis, such as, factor analysis and correlation respectively (Saunders et al., 2009).

6.2.1.2 Reliability

Reliability of the research instrument is directly associated with the precision and accuracy of measuring process or to consistency. The questionnaire's degree of robustness is the main concern of reliability. More specifically, reliability is concerned with the production of findings that are consistent across time, with differing participants and situations (Saunders et al., 2009). Thus, a structured questionnaire has been used using items of existing questionnaires that have been tested in previous studies in order to increase reliability of the research instrument (Creswell, 1994). In addition, the reliability of the research instrument was realized via statistical analysis, such as Cronbach alpha coefficient (.0991) which indicated a high level of internal consistency.

6.3 Findings and analysis

6.3.1 Sample

The questionnaire has been designed and developed appropriately in order to collect data from the Heads of the Greek HEIs' financial departments. The basis for selecting this particular group of participants was the fact that they possessed direct experience deriving from their involvement in the MA change process. Moreover, it was expected that they would have participated in the attempted accounting change since it was initially adopted in their institution and they would have experienced the MA change process either as Heads or staff members of the financial departments. Given the period under investigation which is a period of a decade (1998-2008), the choice of this sample is considered as securing that the respondents have certainly experienced the MA change in their institution since the initial phase of the change. The knowledge

derived from the experience of Heads of the financial departments of the Greek HEIs has been considered as a valuable source of information regarding the external institutional pressures and their integration into organization's internal structures and processes, such as the attempted MA change. Furthermore, the perceptions of the Heads of financial departments have been considered as valuable since they would have many years of experience regarding the MA accounting practices used in HEIs. They would also been involved in organizational making decisions processes regarding the introduction and implementation of the accrual accounting system. In this vein, the database for this structured questionnaire survey included thirty-eight Heads of the financial departments of the HEIs, with twenty-two universities and sixteen TEIs, corresponding thus one questionnaire for each individual HEI. That is, the unit of analysis is specific organizations such as the Greek HEIs, and not individuals.

6.3.2 Data collection

The first step in collecting data was the development of a database with the names, postal and e-mail addresses, and land line office phone numbers of the financial departments' Directors of each individual HEI. This was made by accessing the websites of the Greek HEIs. Then, a hard copy of the survey questionnaire was distributed by post together with a reply-paid envelope and a covering letter. It was considered that a supporting letter would be contributed in explaining the aim of the current study and in demonstrating the usefulness of the findings encouraging the recipients to complete the questionnaire. The supporting letter kindly asked the Directors to promote the survey instrument to one financial department's Head, respectively to the aim of the survey, in order to voluntarily complete this. Explanation

of the particular characteristic of the participant regarding the experience and involvement in the MA change since it was initially attempted was provided, in order to secure the appropriate election of the individual Head of financial department. The survey was administered in June 2008 to the financial departments' Directors across the thirty-eight HEIs. However, the response rate mentioned was very low, as only three completed questionnaires (7%) returned until the end of the August. A possible explanation could be based on the timing of the survey, which took place during the summer period when HEIs are idle. For this reason, an email was sent on September to non respondents in order to remind them the survey. Finally, sixteen completed questionnaires were received until the end of 2008 representing thus a response rate of 42%. The expectation was greater and the response rate was not very high, but this did not affect the data supplied in a negative way. The response rate was compared with response rates in previous relevant studies and it was higher than other ones. For example, seven answered questionnaires were returned, representing a 25% response from Swedish universities, in the investigation of the commodification of higher education in the state of Sweden (Tolofari, 2008). Weller (2009), in his study in the Australian HE sector regarding organizational justice and participative change in the workplace, succeeded in achieving a response rate of 29% during the attitudinal survey conducted. According to the Greek case, Papadimitriou (2011) conducted a mail survey during a research on the adoption of quality management in Greek universities and yielded a response rate of 45% out of the total number of the Greek universities, while the individual response rate was 14% out of the pre determined sample of rectors and vice-rectors of the universities. The author claimed that is broadly accepted that it is

notoriously difficult to conduct empirical social science research in Greece and very low levels of co-operations have to be expected.

6.3.3 Survey limitations

The non-response error is a possible limitation of the current survey, as out of the total subject population an approximate percentage of 58% did not respond to the survey. Checking for response error is suggested to contact by phone a few non respondents and compare their answers with those of the respondents (Papadimitriou, 2011). Following this suggestion a phone contact was made with the non respondents asking kindly to reply to questions related to the research in progress action. Unfortunately, no one accepted to answer questions posted by telephone. However, a statistical test was performed concerning the non-response error in which characteristics of the respondents and the non-respondents were compared. The descriptive analysis regarding the characteristics of the respondents shown a sufficient distribution of the respondents according to their categorization, based on the age, size and location, as well as, the starting year of the implementation of the new system, hopefully thus minimizing the non-response bias.

6.3.4 Data analysis

The sample of respondents was quite small and the analysis of data collected is mainly descriptive. First, a descriptive data has been gathered respectively to the section A of the survey structured questionnaire, providing information about the characteristics of each individual respondent Greek HEI, as well as, the implementation of the accrual accounting system and the institutional forces pressuring for the adoption of the new

system. In turn, the data collected by section B has been statically analyzed providing information about intra organizational dynamics influencing the MA change process into each individual HEI. These dynamics have been explained by both institutional and managerial approach, understanding thus both institutional and change dynamics activated during the MA change process. Finally, data collected by section C has also provided a descriptive data providing information about the extent of the new practices that have been experienced since the implementation of the new system in each individual HEI. The following sections provide analytically the findings from the quantitative data analysis collected from each particular section of the survey structured questionnaire.

6.3.4.1 Section A: An overview and analysis

This section provides a descriptive overview of the main findings regarding the extent of the accrual accounting system implementation in Greek HEIs. In total, thirty eight Heads of the financial departments, twenty-two of universities and sixteen of TEIs, corresponding thus one questionnaire for each individual HEI, were asked to complete the survey structured questionnaire. Eventually, out of thirty eight distributed structured questionnaires, sixteen questionnaires were completed and returned representing sixteen HEIs and yielded a 42% rate of response for the Greek HEIs that were included in the survey. In particular, a rate of 45% (n=10) of the total number of universities and a rate of 38% (n=6) of the total number of TEIs answered the questionnaire (Figure 6.1). Furthermore, questionnaires were checked for completeness and usefulness of all essential information. All questions were answered by respondents and no missing data excluded from the analysis. The responses on the first three questions of the section A

of the questionnaire (A1, A2 and A3) provided information about the characteristics of the respondent institutions and they also secured that the individual respondents have experienced the MA change since it was initially attempted by the law. Actually, all the respondents have directly involved and experienced the attempted MA change, as staff members of the financial department.

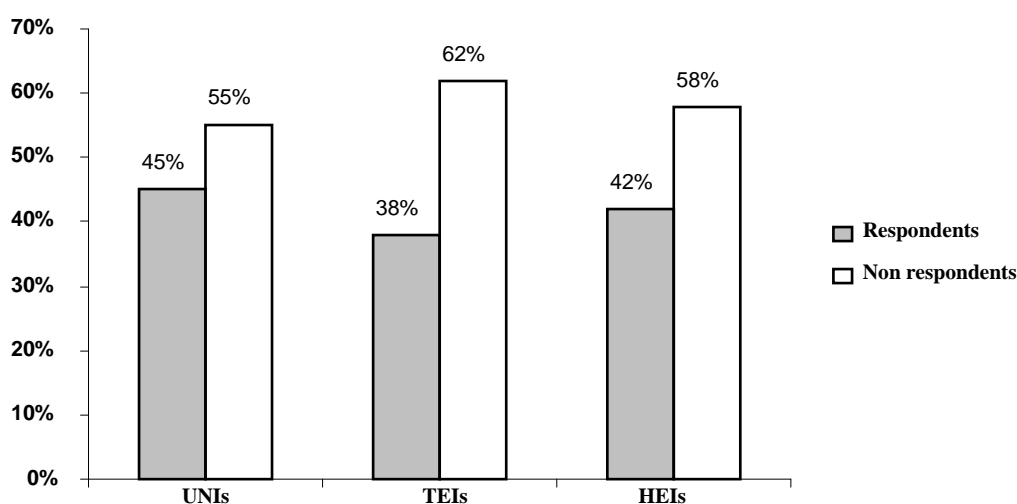


Figure 6.1: Respondents and non respondents according to the HEIs' type.

The proportions of the respondents HEIs according the categories of age, location and size are shown in the following figure 6.2. It is seemed that the highest rate of the respondents HEIs have fallen into categories such as: old (75%), urban (50%) or peripheral (50%) and medium (44%) or large (44%). The categories of new (25%) and small (12%) HEIs have been the lowest of the respondents' rate. In specific, there are no new respondent TEIs (0%), while there is a low response rate (10%) of small universities.

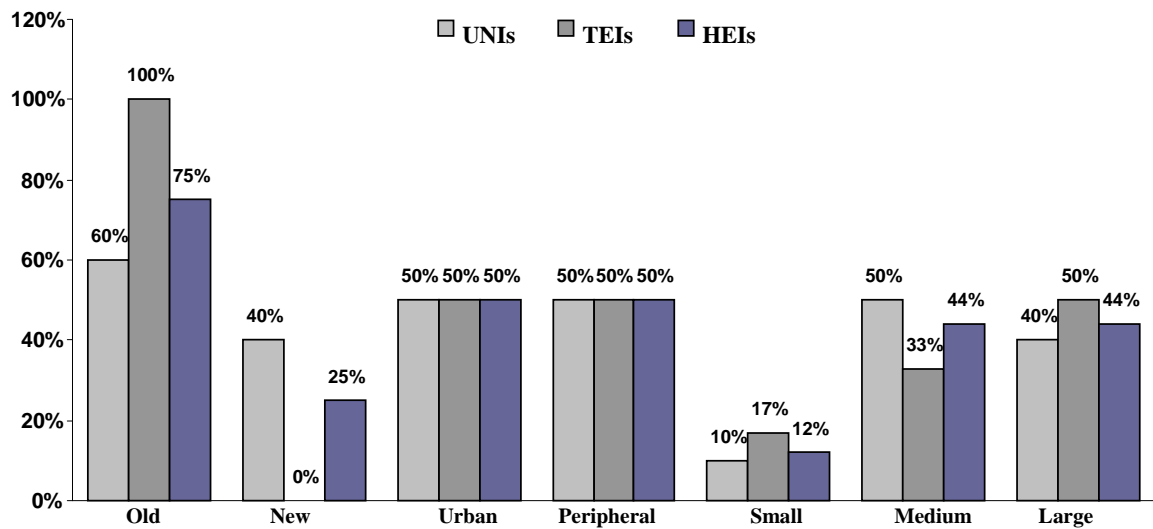


Figure 6.2: Respondents according to the HEIs' type and categories.

Furthermore, figure 6.3 presents the categories of the respondents HEIs according to the total number of Greek HEIs' type and category. In particular, it shows that the respondent HEIs are mainly old (48%), urban (57%) and large (78%).

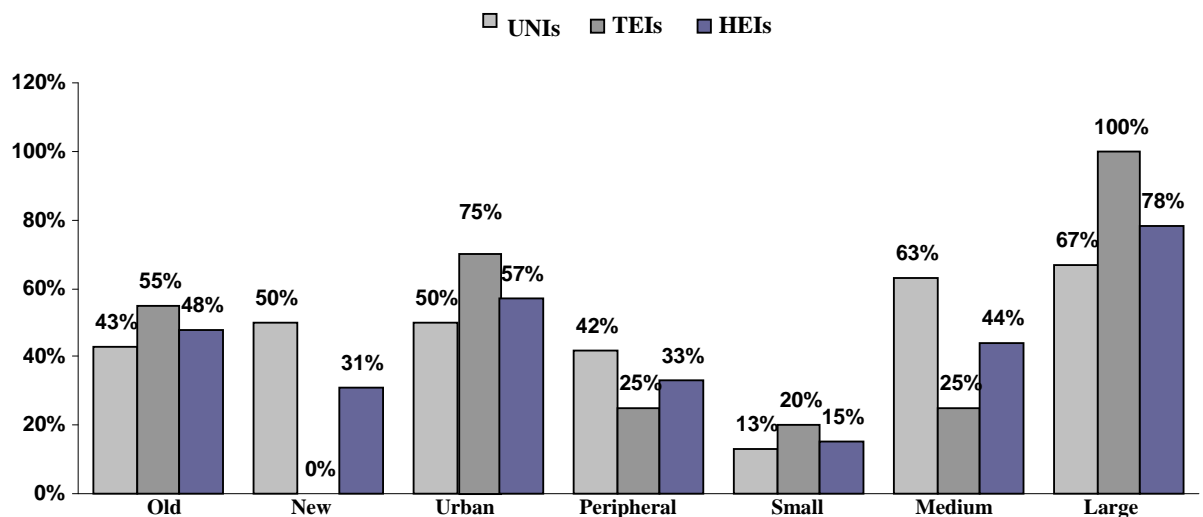


Figure 6.3: Respondents according to the total number of HEIs' type and categories.

A low percentage of small HEIs (15%) and zero percentage (0%) of new TEIs have answered the questionnaire.

Following, the responses of the next two questions of the section A of the questionnaire (A4 and A5) concerning the implementation of the accrual accounting system are presented in the next figures. Figure 6.4 suggests that a rate of 31% (n=5) from the respondents HEIs (n=16) have full implemented the accrual accounting system, while a rate of 69% (n=11) have not implemented the new system. Specifically, a rate of 30% (n=3) from the respondents universities (n=10) and a rate of 33% (n=2) from the respondents TEIs have implemented the new system, while a rate of 70% (n=7) of the respondents universities and a rate of 67% (n=4) of the respondents TEIs have not implemented the accrual accounting system. However, the figure 6.5 shows that according to the total number of HEIs that have implemented the accrual accounting system (n=11), a rate of 45% (n=5) have answered the questionnaire. Specifically, according to the total number of the universities that have implemented the new system (n=7), a rate of 43% (n=3) answered the questionnaire, while according to the total number of the TEIs that have implemented the accrual accounting system (n=4) a rate of 50% (n=2) completed the questionnaire.

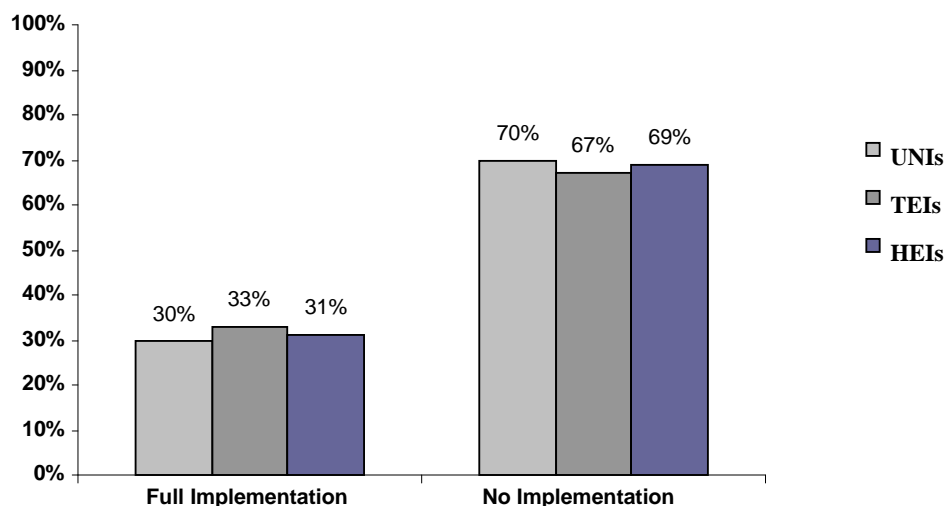


Figure 6.4: Respondents implemented the accrual accounting according to the HEIs type.

.On the other hand, the respondents HEIs that have not implemented the new system represent a rate of 41% (n=11) of the total number of HEIs that have not implemented the new system (n=27). Specifically, the respondents universities that have not implemented the new system represent a response rate of 47% (n=7) of the total number of universities that have not implemented the new system (n=15), while a response rate of 33% (n=4) are the representatives of the total number of TEIs that have not implemented the new system (n=12). These response rates have been considered as not affecting the collected data in a negative way presenting in total a rate of 45% of the HEIs that have implemented the accrual accounting system and a rate of 41% of the HEIs that have not implement the new system until the time this investigation was undertaken.

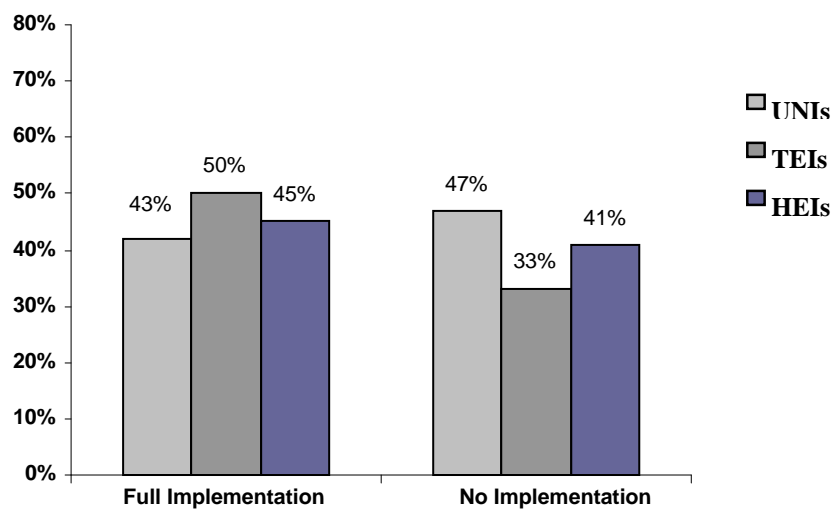


Figure 6.5: Respondents implemented the accrual accounting according to the total HEIs that implemented the accrual basis accounting system.

According to the time the new system was applied, as it is shown in figure 6.6 from the respondents that implemented the accrual basis accounting, a rate of 60% had initiated the new system's implementation until 2001 (n=3) while the rest of them (40%) had initiated the new system's implementation from 2001 onwards (n=2). In particular, the rate of the TEIs respondents implemented the accrual accounting until 2001 is 100% (n=2). According to the respondents universities implemented the accrual accounting, a rate of 33% belong to those universities that had initiated the new system's implementation until 2001 (n=1) while the rest of them (67%) had initiated the new system's implementation post the year 2001 (n=2).

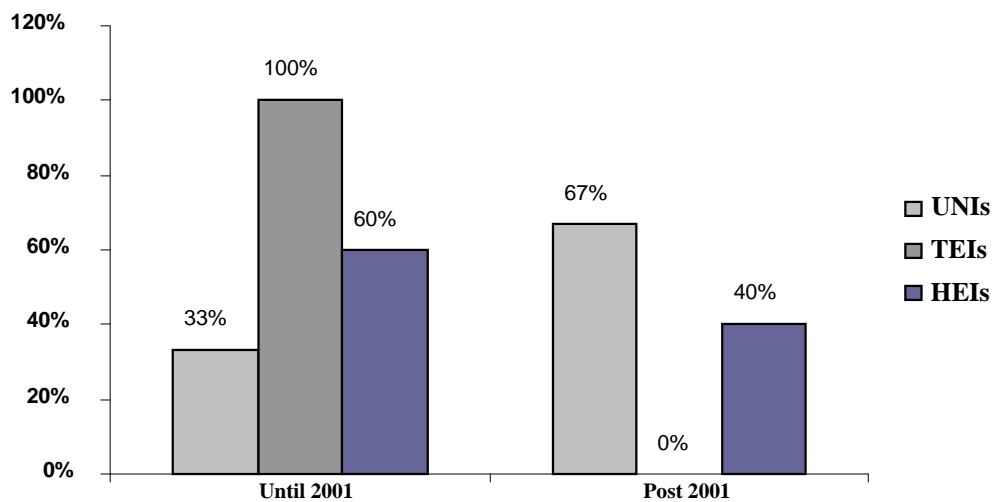


Figure 6.6: Respondents implemented the accrual accounting according to the starting year and HEIs' type (on a respondents implemented the new system basis).

However, there is a sufficient diversity of the data collection as the respondents HEIs belong both to the former and later adopters of the new system according to the starting year. This view is also supported from the findings that are shown in the following figure 6.7. As it is seen in figure 6.7 a rate of 50% of the total number of HEIs implemented the new system until 2001 have answered the questionnaire while the corresponding rate of the total number of HEIs implemented the new system from 2001 onward is 40%. Similarly with the figure 6.6 the percentage of the respondent TEIs implemented the new system until 2001 is higher (67%) than the corresponding rate of those starting implementation post the year 2001 (0%).

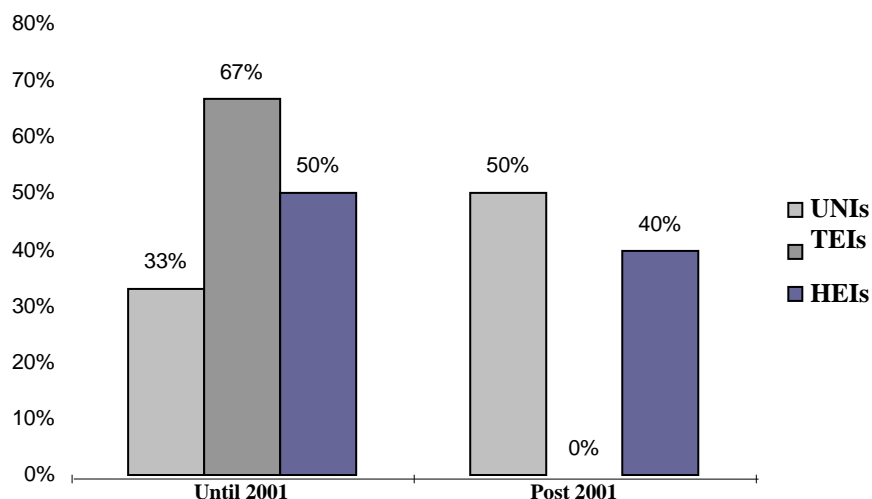


Figure 6.7: Respondents implemented the accrual accounting according to the starting year and HEIs' type (on a total HEIs implemented the new system basis).

Contradictory, the percentage of the respondent universities implemented the new system until 2001 is lower (33%) than the corresponding rate of those starting from 2001 onward (50%). Consequently, remaining the percentage of the respondents HEIs implemented the new system until 2001 higher (50%) than that of starting implementation post the year 2001 (40%), there is a sufficient diversity of the data collection as the respondents HEIs belong both to the former and later adopters of the new system according to the starting year.

Finally, the last question (A6) of the section A of the questionnaire concerns the institutional forces assisting for the adoption of the new system. The question is constituted by four statements on a five Likert scale that respondents have called to answer by ticking the appropriate one representing the alternative that best corresponds with their view on the attempted MA change. The statements refer to coercive, normative and mimetic forces reflected by the governmental pressures exerted, the leader commitment and professional support provided and the positive examples

mimicking. The following tables explain the institutional forces mirrored by the posted statements which might assist towards the MA change in the Greek HEIs. Descriptive statistics are used presenting and analyzing the set of the statements, as well as, each one statement separately mentioned by the respondents. The means of institutional pressures, as they are presented in table 6.2, vary between the minimum value (M=1,19) for the assistance of positive HEIs examples statement and the maximum value (M=2,44) for the assistance of the commitment of leaders and top management statement.

		Statistics			
		Governmental pressure	Leaders commitment	Professional support	Positive examples
N	Valid	16	16	16	16
	Missing	0	0	0	0
Mean		2,00	2,44	2,25	1,19
Std. Deviation		1,592	1,825	1,915	,403
Minimum		1	1	1	1
Maximum		5	5	5	2

Table 6.2: Descriptive frequency analysis (Measured on scale 1=Did not assist to 5= Assisted Markedly).

However, it is obviously shown that all means values are very low expressing the perception that none of the institutional pressures such as coercive, normative and mimetic had assist towards the MA change. Especially, the means of positive HEIs examples and the governmental pressures statements did not arise beyond the value of 2,00 (Assisted hardly). However, regarding the coercive and normative pressures, the values of Std. Deviation expressing the minimum (min=1) and maximum (max=5) values imply that there are cases in which the perceived coercive and normative forces assisted markedly the adoption of the MA change. This deviation may reflect the different perceptions between the HEIs that have implemented the new system and

those that they have not, with the former having experienced higher level of the coercive and normative pressures rather than the latter. In particular, the descriptive frequency analysis of each of the statements showed that 68,8% (n=11) explained that governmental pressure did not assist, leaders and top management commitment did not or hardly assisted and professional support did not assist the implementation of the new system. A response rate of 25% (n=4) explained that government pressure assisted rather or markedly while a percentage of 31,3% (n=5) explained the leaders and top management commitment, as well as, professional support assisted markedly the new system adoption. These findings are not surprising given the fact that a rate of 31% (n=5) from the respondents HEIs (n=16) have full implemented the accrual accounting system (Figure, 6.8) and thus they may be have been experienced the coercive and normative pressures derived by the law and the leaders and top management commitment and professional support. Finally, according to the positive examples statement, rate values of 1 and 2 are presented and explained the total (100%) response rate, implying that the positive examples did not assist at all towards the adoption of the new accounting system.

Based on the above results the coercive, normative and mimetic institutional forces reflected by the posted statement are shown in Figure 6.8. With the coloured columns presenting each one of the respondents HEIs and the vertical axis showing the responses values, figure 6.8 provides a clear picture of the Std. Deviation values according to the respondents HEIs.

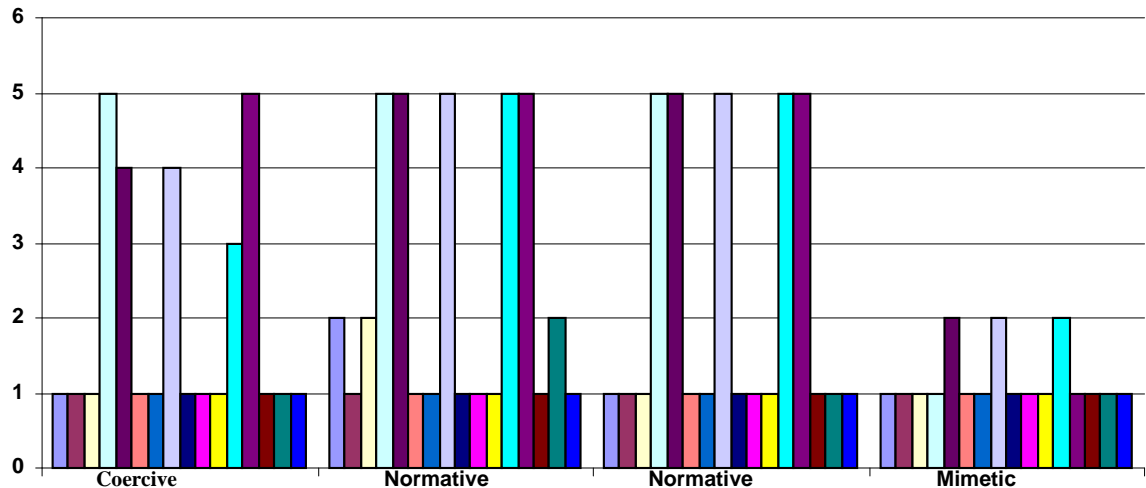


Figure 6.8: Institutional forces according to the respondent HEIs (Measured on scale 1=Did not assist to 5= Assisted Markedly)

In contrast the mimetic forces seem that do not assist or assist hardly towards the MA change with the value of Std. Deviation remaining much lower than value of 1,000 (Std. D. = 0,403). In order to better explain the mean rates of the institutional pressures respondent sample has been divided into two groups. The first group (GROUP “YES”) constituted by the respondents that have implemented the accrual accounting system (n=5) while the second group (GROUP “NO”) included the respondents that have not implemented the accrual accounting system (n=11).

Statistics Group “YES”					
		Governmental pressure	Leaders commitment	Professional support	Positive examples
N	Valid	5	5	5	5
	Missing	0	0	0	0
Mean		4,20	5,00	5,00	1,60
Std. Deviation		,837	,000	,000	,548
Minimum		3	5	5	1
Maximum		5	5	5	2

Table 6.3: Descriptive frequency analysis (Measured on scale 1=Did not assist to 5= Assisted Markedly).

Statistics Group "NO"					
		Governmental pressure	Leaders commitment	Professional support	Positive examples
N	Valid	11	11	11	11
	Missing	0	0	0	0
Mean		1,00	1,27	1,00	1,00
Std. Deviation		,000	,467	,000	,000
Minimum		1	1	1	1
Maximum		1	2	1	1

Table 6.4: Descriptive frequency analysis (Measured on scale 1=Did not assist to 5= Assisted Markedly).

First, the coercive forces, reflected by the statements of governmental pressure, expressed a high level of mean rate (4,20) in the case of group "YES", while normative forces, reflected by the statements of leaders commitment and professional support, picked up to the highest level of mean rate (5,00). It is obvious that the respondent TEIs that implemented the accrual basis accounting system have also experienced at a high level both coercive and normative pressures. Contradictory, in the case of group "NO" equally coercive and normative forces did not have been experienced, with the mean rate remaining in the lowest level of 1,00 or 1,27. Finally, the mimetic force reflected by the positive HEIs examples, seemed that did not assist toward the adoption of the new system, independently of the implementation or not of the new system. In the next section the analysis of the change dynamics will further explain the attempted MA change and the experienced change forces as they perceived by the involved member staff in each individual Greek HEI.

6.3.4.2 Section B: Analysing the intra organizational dynamics

The data collected via the questionnaire survey was analysed with the assistance of a commonly utilized statistical package, the SPSS, version 18 and as an appropriate

statistical method for the objectives of the current study. Further, for purposes of checking reliability the Cronbach alpha coefficient was computed. This helped to ensure consistency, by checking if the scales employed measured what they were intended to. Descriptive statistics and Cronbach alpha coefficient for the instrument items are shown in the table 6.5 below. The Cronbach alpha coefficient needs to have a value higher than 0,5 for purposes of scale reliability. Thus, as shown in Table 6.7 above, the value of the Cronbach alpha coefficient is higher than 0,5 indicating that the instrument is reliable. Furthermore, items B7 (*The purpose, goal and objectives behind the change were clearly understood*), B12 (*It was believed that the change was the right way for the organization to provide better service*) have the highest means scores of 3,94 and 3,81 respectively. On the other hand, items B40 (*There was check that the original success criteria have been achieved*) and B45 (*Provision was made for continuous training and refresher courses to reinforce the newly acquired behaviour*) have the lower mean score of 2,25 while items B36 (*There was visibly recognition and rewarding those delivering short-term wins towards achievement of the long term vision*), B39 (*There was examination of the reasons for successes and failures*) and B43 (*The new state was formalized, implemented and monitored on a continuous basis*) have mean score of 2,31. As it is obvious the total means do not arise beyond the score of 3,87, the most of the items (66%) having mean up to 3, while only a percentage of 34% have mean beyond the score of 3. It is also noteworthy that following the items from the beginning of the table towards the end the means tend to be decreased. Furthermore, in order to explain the rates and the decreased tension of means and the attempted MA change management process, a principal component analysis has been used.

	N	Min	Max	Sum	Mean	Std. D		N	Min	Max	Sum	Mean	Std. D
B1	16	1	5	58	3,63	1,408	B25	16	1	4	46	2,88	,957
B2	16	2	5	60	3,75	1,000	B26	16	1	5	46	2,88	1,360
B3	16	1	5	50	3,12	1,204	B27	16	1	5	43	2,69	1,401
B4	16	1	5	48	3,00	1,155	B28	16	1	5	47	2,94	1,289
B5	16	1	5	51	3,19	1,167	B29	16	1	5	49	3,06	1,237
B6	16	1	5	55	3,44	1,153	B30	16	1	5	46	2,88	1,204
B7	16	2	5	63	3,94	1,124	B31	16	1	4	46	2,88	,957
B8	16	2	5	53	3,31	1,138	B32	16	1	5	41	2,56	1,263
B9	16	1	5	51	3,19	1,109	B33	16	1	5	44	2,75	1,291
B10	16	1	4	49	3,06	,998	B34	16	1	5	45	2,81	1,328
B11	16	2	5	55	3,44	1,031	B35	16	1	5	45	2,81	1,167
B12	16	2	5	61	3,81	1,047	B36	16	1	4	37	2,31	,946
B13	16	1	5	49	3,06	1,181	B37	16	1	4	41	2,56	1,031
B14	16	1	5	48	3,00	1,155	B38	16	1	5	38	2,38	1,310
B15	16	2	5	49	3,06	,998	B39	16	1	5	37	2,31	1,352
B16	16	1	5	48	3,00	1,155	B40	16	1	4	36	2,25	1,291
B17	16	2	5	50	3,13	1,025	B41	16	1	5	42	2,63	1,147
B18	16	2	4	48	3,00	,894	B42	16	1	4	40	2,50	1,095
B19	16	2	5	51	3,19	,911	B43	16	1	5	37	2,31	1,195
B20	16	2	5	51	3,19	,981	B44	16	1	5	41	2,56	1,504
B21	16	1	4	42	2,63	1,088	B45	16	1	4	36	2,25	1,065
B22	16	2	5	49	3,06	1,063	B46	16	1	4	39	2,44	1,209
B23	16	1	5	49	3,06	1,124	B47	16	1	5	40	2,50	1,317
B24	16	1	4	42	2,63	,957							
Reliability Statistics				N of Items		47	Cronbach's Alpha			,991			

Table 6.5: Summary of Descriptive Statistics and Reliability Scores.

Principal component analysis has been employed for the forty seven items of the instrument. Principal component analysis was expected to confirm the MA change process phases respectfully to the theoretical frame of the current study. The size of the sample and the strength of the relationship among the variables under investigation are the key issues that need to be considered in determining the suitability of any particular data set for any factor analysis, including the principal component analysis. The size of sample is still an issue of debate among authors and researchers. It is commonly recommended that it is better to have a larger sample rather than a smaller one (Pallant, 2005; Tabachnick & Fidell, 2001). However, MacCallum et al. (1999, p. 96) in their study concluded that “common rules of thumb regarding sample size in factor analysis are not valid or useful” and highlighted the major importance of considering the level of communality in any study. Indeed, their study indicated that when the level of communalities is consistently higher than 0.6, the importance of the aspect of sampling is lower, reducing thus its impact on the recovery of population factors, and traditionally too small samples (less than 100) may be considered as perfectly adequate. The second issue being addressed is concerned with the degree of the inter-correlation’s strength among the items. The first thing to be done when conducting any factor analysis is to examine the inter-correlation between variables and excluding variables with correlations below about the score of .3 (Field, 2009). Assessing the factorability of the data, two statistical measures have been generated by SPSS. The first one is the test of sphericity (Bartlett, 1954) and the second one is the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser, 1970, 1974). In order for the factor analysis to be considered as appropriate, the test of sphericity (Bartlett, 1954) needs to be significant with a value of $p < .05$. The Kaiser-Meyer-Olkin index ranges from values 0

to 1. It is suggested that for a factor analysis to be considered as good, a minimum value of 0.6 must be received (Pallant, 2005; Tabachnick & Fidell, 2001). In a similar vein with the above discussion, the current study employed a principal component analysis even though the size of sample is very small (n=16) based on MacCallum et al. (1999) and Field (2009) suggestions and Bartlett's test and KMO sampling adequacy measure. For forty seven items of the instrument three components/factors were extracted with a given value greater than 1.00. The total variance explained by the three factors was 88,2% (Appendix B). Furthermore, it is suggested for social sciences studies that a solution of approximately 60% is considered to be satisfactory (Hair et al., 1995). Previously, the inter-correlation between items/variables has been examined with the correlation matrix showing significant correlation between variables much higher than .3. The communalities matrix and screen plot extracted results also confined to three components with the Component Score Covariance Matrix showing the absolute distinction between the three components. In table 6.6 the rotated component matrix is shown indicating the components loadings of every variable on these three factors. Component 1 (Com1) comprised of 12 items, Component 1 (Com2) of 19 items and Component 3 (Com3) of 16 items. By analyzing the items in the components the three phases of the MA change process have been identified and they are labeled as: Com1: Encoding/Motivating change, Com2: Enacting/Managing change, Com3: Reproducing/Institutionalizing change.

Items	Component loadings				
Com1 Encoding/Motivating Change		Com2 Enacting/Managing change		Com3 Reproducing/ Institutionalizing change	
B1	,839	B13	,695	B32	,764
B2	,800	B14	,625	B33	,692
B3	,713	B15	,617	B34	,693
B4	,659	B16	,818	B35	,747
B5	,715	B17	,697	B36	,842
B6	,640	B18	,832	B37	,804
B7	,837	B19	,672	B38	,912
B8	,819	B20	,733	B39	,899
B9	,795	B21	,704	B40	,878
B10	,783	B22	,806	B41	,740
B11	,812	B23	,775	B42	,761
B12	,745	B24	,663	B43	,824
		B25	,834	B44	,827
		B26	,841	B45	,837
		B27	,816	B46	,814
		B28	,666	B47	,804
		B29	,800		
		B30	,684		
		B31	,716		

Table 6.6: Rotated Component Matrix.

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Furthermore, the correlations matrix for the three components has shown a significant correlation between them at a 0.01 significance level while the Component Score

Covariance Matrix has confirmed the absolute distinction between the three components (Table, 6.7).

Component		COM1	COM2	COM3
	COM1	1,000	,000	,000
	COM2	,000	1,000	,000
	COM3	,000	,000	1,000

Table 6.7: Component Score Covariance Matrix
Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

Principal component analysis confirmed also the tension of mean rates, mirroring the three phases of the attempted MA change in the Greek HEIs and reflecting the change dynamics emerged in each individual HEI.

		COM1	COM2	COM3
N	Valid	16	16	16
	Missing	0	0	0
Mean		3,4063	2,9572	2,4961
Std. Deviation		1,02056	1,02060	1,15119
Minimum		2,00	1,37	1,00
Maximum		4,58	4,58	4,31
Sum		54,50	47,32	39,94

Table 6.8: Statistics of COM1, COM2 and COM3.

In particular, mean rates is shown in table 6.8 to be reduced following the Encoding/Motivating phase (M=3,4) towards the Reproducing/Institutionalizing phase (M=2,5). This tension implies reasonably that even though the MA change had been attempted initially and the first phase of the accounting change had been experienced by a number of HEIs, in turn, it may not be implemented finally at all or it may be

implemented partially. In these cases, having no fully adopted all the change process step by step respectively to the theoretical frame supported by the current study, the progress of the change process has been fallen down partially or totally. In order to explain the decreasing tension of mean rates the respondent sample has been divided into groups. The first group (GROUP “YES”) constituted by the respondents that have implemented the accrual accounting system (n=5) while the second group (GROUP “NO”) included the respondents that have not implemented the accrual accounting system (n=11). In table 6.9 the mean rates of both GROUPS “YES” and “NO” show respectively the decreasing tension with the first phase of Encoding/Motivating having the highest mean rates in both cases (M=4,45 and M=2,93 respectively) and the last phase of Reproducing/Institutionalizing having the lowest mean rates (M=4 and M=1,8 respectively). It is remarkable that even in the case of GROUP “YES” the mean rates present the similar decreasing tension with the minimum rate remaining beyond 3,8 in the third phase. This implies that although in the first phase, the adoption of the accounting change has successfully motivated the evolved staff and the new rules had been encoded towards fully implementing, however, in the consecutive phases the process seems that had not been drawn upon the required MA change steps in a similar way. In the second phase of managing people the mean rate (M=4,25) implies an efficient level of the involved staff agreement but, at the same time, the decreasing tension of mean rate it may be translated as emerged problems and difficulties during the managing process, reducing thus the level of the agreement concerning the enacting of the involved staff. This view is also supported by the mean rate of the last phase of reproducing the new accounting practices and institutionalizing them as being taken for granted (routines). Problems and difficulties faced in the second phase seems to affect,

in some way, the last phase, reducing even more the level of the agreement concerning the institutionalization of the new practices, although it remains beyond the rate of 4 still expressing an efficient level of agreement.

		GROUP “YES”			GROUP “NO”		
		COM1	COM2	COM3	COM1	COM2	COM3
N	Valid	5	5	5	11	11	11
	Missing	0	0	0	0	0	0
Mean		4,4500	4,2526	4,0625	2,9318	2,3684	1,7841
Std. Deviation		,16245	,23062	,19764	,87148	,56637	,43334
Minimum		4,17	3,95	3,81	2,00	1,37	1,00
Maximum		4,58	4,58	4,31	4,42	3,26	2,38
Sum		22,25	21,26	20,31	32,25	26,05	19,63

Table 6.9: Statistics of GROUP “YES” and GROUP “NO”.

According to the second GROUP “NO” it is obvious the disagreement of the involved staff during all phases of the MA change. The means rate remain during the three phases under the level of 3 rate, while each phase seems to influence the consecutive phase diminishing thus strongly the level of agreement of the involved staff. Consequently, the GROUP “NO” obviously expresses these cases in which the intra organizational dynamics have been slightly activated towards the adoption and implementation of the new system, having thus no sufficiently motivating the involved staff and encoding the new rules, no effectively managing the accounting change and enacting the involved staff and consequently no reproducing the new practices and institutionalizing them as being taken for granted. In this way, the intra organizational dynamics that have been activated in each HEI seems to affect the attempted MA

change, as they interact to each other driving thus the whole MA change process from the start point until the end. Finally, the following section C analysis provides evidence of the extent of the accrual accounting daily practices implementation investigating thus the implications of the intra organizational dynamics in each individual HEI according to the institutionalization of the new practices and the new routines up rising as taken for granted.

6.3.4.3 Section C: Resulting in new routines

The last section C of the questionnaire contains ten statements subdivided totally in forty-five sub-statements regarding the use of the accrual accounting and the new routines that have been actually experienced on a daily base. The statements have a closed format with binary choices “YES” (value=1) or “NO” (value=0) with the minimum value 0 and the maximum value 1 for each statement. The extent to which each one of the following statements have been actually implemented within each individual respondent HEI is presented and analyzed with respect to the broadly accepted accrual accounting principles.

According to the table 6.11 the majority of the respondents HEIs are recognizing fixed assets. This is evidenced in two forms. The one is via balance sheets that are formed based in full accruals and the second one is via the periodic reporting of assets and liabilities. The survey data does not provide a clear view on the rate of implementation of the accrual basis accounting for either one of the two methods making thus the distinguishment between them very difficult if not impossible.

	GROUP "YES"						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C1	Recognition and measurement of fixed assets						
C11	Fixed assets are recognised	5	1	1	5	1,00	,000
C12	A fixed asset register is maintained	5	1	1	5	1,00	,000
C13	The fixed asset register records full details such as description, purchase date, cost, etc.	5	1	1	5	1,00	,000
C14	Land is recognised as a fixed asset	5	1	1	5	1,00	,000
C15	Infrastructure assets are recognised	5	1	1	5	1,00	,000
C16	Heritage assets are recognised	5	1	1	5	1,00	,000
C17	Assets in progress are recognised	5	0	1	2	,40	,548
C18	Fixed assets are recognised at historic cost	5	1	1	5	1,00	,000
C19	Fixed assets are recognised at fair value	5	1	0	0	,00	,000
C110	Fixed assets are re-valued using price indices	5	0	0	0	,00	,000
	TOTAL MEAN					74%	

Table 6.10: Descriptive statistics regarding recognition and measurement of fixed assets for GROUP "YES".

	TOTAL RESPONDENTS						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C1	Recognition and measurement of fixed assets						
C11	Fixed assets are recognised	16	1	1	16	1,00	,000
C12	A fixed asset register is maintained	16	0	1	8	,50	,516
C13	The fixed asset register records full details such as description, purchase date, cost, etc.	16	0	1	6	,38	,500
C14	Land is recognised as a fixed asset	16	1	1	16	1,00	,000
C15	Infrastructure assets are recognised	16	1	1	16	1,00	,000
C16	Heritage assets are recognised	16	0	1	8	,50	,516
C17	Assets in progress are recognised	16	0	1	5	,31	,342
C18	Fixed assets are recognised at historic cost	16	0	1	16	1,00	,250
C19	Fixed assets are recognised at fair value	16	0	0	0	,00	,000
C110	Fixed assets are re-valued using price indices	16	0	0	0	,00	,000
	TOTAL MEAN					56,9%	

Table 6.11: Descriptive statistics regarding recognition and measurement of fixed assets for Total respondents.

However, it can be concluded that the assets' value is recognised in some form by all the HEIs participating in the survey. In addition, the very nature of the questionnaire gives rise to a complication. The design of the various statements was made in such a way as to retrieve a particular choice subject to accrual basis accounting. For instance, statements C18 and C19 ask about the recognition of fixed assets at historic cost and at fair value respectively. Further, answers to C18 and C19 are not mutually exclusive as under the accrual basis accounting both the recognition of fixed assets at historic cost and at fair value are permissible. As a result, a negative answer is not a negative indication about the adoption and following of the principles of accrual basis accounting. Based on the principle of accruals, it is appropriate to match any asset's cost with the benefits deriving from its holding. Consequently, this process involves those assets that have a life of over a year, their use provides benefits, are shown and included in the balance sheet and are depreciated over the period of their use. With regard to recognition of those assets, their valuation being based on historic cost shows a universal application (100%). It was also shown that fair values were not used at all. Re-valuation was not used at all but if it was selected then all assets in the same class (fixed assets) would need to be re-valued. Fair values were not used either. None of the respondent HEIs uses indices based on prices for the purpose of asset revaluation to current cost as it is a very complicated and tedious approach.

The same trend was evidenced by those HEIs that are included in the "YES" group as shown in table 6.10 above. It would be normal to expect from this group to value assets at fair value and revalue them with the use of indices but it did not happen. Further, it would require as shown below in question C23 that historic depreciation be adjusted for

re-valued assets and it is clear that this view is not commonly shared. Questions about specific types of assets have been included in the questionnaire such as for land and assets under construction. The response rate for these two types of assets was positive with the percentages received being respectively 100% and 31% while the respective percentages for the “YES” group were 100% and 40%.

The response rate for land shows that there is consistency between the land and the fixed assets as it is aligned with the fixed asset overall result of 100%. The same rate is evidenced for the “YES” group. Thus, it is evidenced that the principles of accrual basis accounting are being followed both in the case of fixed assets and in the case of land for both the “Total” and the “YES” groups. The same principles are followed to a lesser extent (31%) by assets that are not ready as they are under construction with the response for the “YES” group being 40% due to. The response rate for the recognition of heritage and infrastructure assets is decreasing (from 100% to 50%) although it remains positive while for the “YES” group it remains unchanged (100%) for both questions. This can be attributed to the nature of the questionnaire. For instance, although heritage assets may be held by HEIs their ownership is retained by the central government due to their nature. As a result, a negative response rate should be anticipated with respect to HEIs.

Broadly speaking, the results in table 6.12 tie in with those in table 6.11. In table 6.12, it is determined that in approximately 31% of the respondent HEIs fixed assets were capitalised. This capitalisation was in accordance with the principles of the accrual basis accounting. It also shows that 100% provide for depreciation while only 31%

capitalise enhancements to assets. The respective figures for the “YES” group are 100% for both questions.

	TOTAL RESPONDENTS						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C2	Depreciation and maintenance costs of fixed assets						
C21	Depreciation on assets is accounted for	16	1	1	16	1,00	,000
C22	Maintenance costs on fixed assets are recognised as part of the asset	16	0	1	4	,25	,447
C23	Adjustments are made to depreciation on re-valued assets	16	0	1	4	,25	,447
C24	Asset enhancements are capitalized	16	0	1	5	,31	,479
C25	Depreciation is recognised where above revaluation	16	0	0	0	,00	,000
	TOTAL MEAN					36.2%	

Table 6.12: Descriptive statistics regarding depreciation and maintenance costs of fixed assets for total respondents.

	GROUP “YES”						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C2	Depreciation and maintenance costs of fixed assets						
C21	Depreciation on assets is accounted for	5	1	1	5	1,00	,000
C22	Maintenance costs on fixed assets are recognised as part of the asset	5	0	1	4	,80	,447
C23	Adjustments are made to depreciation on re-valued assets	5	0	1	4	,80	,447
C24	Asset enhancements are capitalized	5	1	1	5	1,00	,000
C25	Depreciation is recognised where above revaluation	5	0	0	0	,00	,000
	TOTAL MEAN					72%	

Table 6.13: Descriptive statistics regarding depreciation and maintenance costs of fixed assets for GROUP “YES”.

A closer match of these two figures would provide further assurance regarding the consistency of the results. It is clear that the results are consistent despite this large difference due to the fact that the government obliges HEIs to depreciate their fixed assets by applying a fixed rate on a per year basis regardless of which accounting system they employ. The figure for the capitalisation of asset enhancement further

strengthens the conclusion that for asset accounting, 31% of the respondent HEIs and 100% of the “YES” group follow accrual basis accounting principles. However, views were mixed regarding the need for the carrying values of the assets to be adjusted. This need actually is representative of the principle of accrual basis accounting and arose from the occurrence of maintenance as they needed to be recognized and revalued. From the total number of respondents, an approximate 25% (80% for the “YES” group) confirmed their agreement with the principle being followed. In addition, there is consistency in both tables for questions C23 and C22. Capitalization of asset enhancements (C24) was 31% for the total group and 100% for the “YES” group. In the first case, asset enhancements are recognized as expenses (cash basis) and in the second case they are considered part of the asset and treated according to the accrual principles. The question placed in statement C25 was aiming to reveal whether the principles of accrual accounting were being followed for the purpose of recognizing depreciation on assets that were re-valued and on the amount above revaluation. The reply from both groups (0% for both tables) on this matter indicated that there was a feeling that the principles of accruals were not met or never applied in revaluation. In addition, there was a general view in both groups that assets should be depreciated on their full carrying value.

Statement C3 (Tables 6.14 and 6.15) is concerned with the recognition of fixed assets at the beginning of the new fiscal year in the opening balance sheet and also the way this is approached by the various bodies. For example, how this was approached at the time of the initiation of the principles of accrual basis accounting. Interestingly, in this case, the response rate is found to be a positive figure of 31%.

	TOTAL RESPONDENTS						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C3	Fixed assets in the opening balance sheet						
C31	Fixed assets are included at cost on opening balance sheet	16	0	1	5	,31	,342
C32	Fixed assets are included at fair value on the opening balance sheet	16	0	0	0	,00	,000
C33	Only depreciable fixed assets are included on the opening balance sheet	16	0	1	3	,19	,403
	TOTAL MEAN					16,7%	

Table 6.14: Descriptive statistics regarding fixed assets in the opening balance sheet for total respondents.

	GROUP "YES"						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C3	Fixed assets in the opening balance sheet						
C31	Fixed assets are included at cost on opening balance sheet	5	1	1	5	1,00	,000
C32	Fixed assets are included at fair value on the opening balance sheet	5	0	0	0	,00	,000
C33	Only depreciable fixed assets are included on the opening balance sheet	5	0	1	2	,40	,548
	TOTAL MEAN					46,7%	

Table 6.15: Descriptive statistics regarding fixed assets in the opening balance sheet for GROUP "YES".

There is a more realistic statistical result regarding those HEIs that have shifted towards the implementation of the accrual basis accounting system as the rate for the "YES" group is 100%. The responses also indicate that in opening accounts that are based on accruals it is expected to follow one approach in accounting for fixed assets. It is worth noting that the rate of response for both questions C19 and C32 is 0% for both groups as they are regarded with the use of fair values in asset recognition. This suggests that it is not likely to be the case that respondent HEIs report their assets into the balance sheet at fair value. In addition, they are not likely to use fair values in an ongoing basis when accounting for assets either. Further, the rationale behind this stand may be the

fact that the HEIs are aware of their assets' historic cost and for this reason they are more likely to include these in the opening balance sheet by applying the known historic cost figure. The feeling among the majority of the respondent HEIs was that the opening balance sheet should include all the assets regardless of these being subject to depreciation or not. This was felt by both categories (31% by total respondents and 40% by "YES" group). Furthermore, the "YES" group supported at the rate of 40% the view that only depreciable assets should be shown in the opening balance sheet. This may be attributed to the very nature of the fixed assets in their possession.

	TOTAL RESPONDENTS						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C4	Stocks/inventories						
C41	Inventories are recorded	16	0	1	5	,31	,479
C42	All stocks are recognised	16	0	1	13	,81	,403
C43	Stocks are recognised at fair value	16	0	1	0	,00	,250
C44	Stocks are recognised at book value	16	0	1	16	1,00	,250
	TOTAL MEAN					53%	

Table 6.16: Descriptive statistics regarding stocks/inventories for total respondents.

	GROUP "YES"						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C4	Stocks/inventories						
C41	Inventories are recorded	5	0	1	3	,60	,548
C42	All stocks are recognised	5	0	1	4	,80	,447
C43	Stocks are recognised at fair value	5	0	0	0	,00	,000
C44	Stocks are recognised at book value	5	1	1	5	1,00	,000
	TOTAL MEAN					60%	

Table 6.17: Descriptive statistics regarding stocks / inventories for GROUP "YES".

In tables 6.16 and 6.17 general stocks is recognised in some form by the majority of the respondents HEIs. For both groups, stocks are not recognised on a basis of fair value as compared to the vast majority of HEIs valuing stock on a historical cost basis. If they were following the fair value basis for stock valuation it would be necessary that the principles of the fair value basis of valuation such as the ‘lower of cost and net realisable value’ were followed.

	TOTAL RESPONDENTS						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C5	Revenues and expenses						
C51	Revenues are recognised when earned	16	0	1	5	,31	,479
C52	Expenses are recognised when incurred	16	0	1	5	,31	,516
C53	Revenue and expenses are accrued for	16	0	1	5	,31	,479
C54	Expenses are recognised when goods are ordered but not delivered or invoiced	16	0	1	5	,31	,447
C55	Expenses are recognised when paid and adjust at the year end	16	0	1	11	,69	,447
C56	Provisions are recognised if criteria are met	16	0	1	14	,88	,342
C57	Budget plays no part in criteria for recognition	16	0	1	4	,25	,447
C58	Revenues and expenses are recognised only if in the budget	16	0	1	16	1,00	,250
	TOTAL MEAN					50,8%	

Table 6.18: Descriptive statistics regarding revenues and expenses for total respondents.

	GROUP “YES”						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C5	Revenues and expenses						
C51	Revenues are recognised when earned	5	1	1	5	1,00	,000
C52	Expenses are recognised when incurred	5	1	1	5	1,00	,000
C53	Revenue and expenses are accrued for	5	1	1	5	1,00	,000
C54	Expenses are recognised when goods are ordered but not delivered or invoiced	5	0	1	5	1,0	,000
C55	Expenses are recognised when paid and adjust at the year end	5	0	1	1	,20	,447
C56	Provisions are recognised if criteria are met	5	0	1	3	,60	,548
C57	Budget plays no part in criteria for recognition	5	0	1	2	,40	,548
C58	Revenues and expenses are recognised only if in the budget	5	0	1	4	,80	,447
	TOTAL MEAN					75%	

Table 6.19: Descriptive statistics regarding revenues and expenses for GROUP “YES”.

The differences shown in the “YES” group regarding the increased rate in the recording of inventories is attributed to the new system implemented while the rate for the stocks recognized is the same for both groups due to the nature stocks that HEIs possess.

In table 6.18, the results indicate that a moderate percentage of the respondent HEIs have applied the accrual basis accounting system in their accounting for income and expenditures. The rates received for questions C51 and C53 (31% and 31% respectively) are aligned with the rate received for question C24 (31% for fixed assets). The same analogy exists for the respective rates shown in the “YES” group. However, it is worth noting that revenues are recognized on an accrual basis by 31% of the respondent HEIs while expenses are recognized on an accrual basis by only 31% respectively. This comparatively lower figure may imply the use of accruals on a modified basis. Under this basis it is possible that the year end expense results being estimated or added later. Question C54 also asked about the ‘recognition of goods at the time of their order prior to these being invoiced or delivered’ by the end of the fiscal year. One third of the respondent HEIs (31%) agreed that the benefit accompanying the order of these goods was not received in the course of the fiscal year and as such their recognition did not reflect any of the principles of accrual accounting while for the ‘YES’ group the rate was 100% with obvious results regarding the benefits received. In Question C56, the majority (88%) replied that these are indeed ‘recognized when certain criteria are met’ while the ‘YES’ group provided a lower rate of 60%. The reason is that provisions are not currently recorded and are effectively recognised only when the related payment is made. This is aligned with the response rates seen in questions C42 and C56 (80% to 88% respectively) as compared to the respective rates

80% and 60% for the “YES” group, regarding the particular accrual items that are included in the financial statements. An implication deriving from the above is that provisions are not recognized for certain HEIs despite the fact that in the financial statements are created through the use of the principles of accrual basis accounting. Provision for bad debts and/or doubtful accounts is created and recorded in the budget. This derives from the principle of prudence although a fair value valuation is normally required but is not evidenced in this case.

Furthermore, more accurate conclusions could be drawn via a more detailed analysis. For instance, those HEIs that accrue but not provide (view of prudence) need to cater more towards full compliance with the accrual basis accounting principles. The role of the budget in the recognition of financial transactions in the financial statements has also been included via the existence of two questions in the questionnaire. The first question (C57) received a response rate (agreement) of 25% according to which the respondents agreed with the fact that the budget plays no part in the recognition of revenues and expenses. The respective response rate for the “YES” group was 40% and indicated the increased importance of the budget to the recognition of revenues and expenses. In addition, they questioned the proper application of the principles of accruals. The second question (C58) received a massive 100% response rate (agreement) which implies that all the respondents agreed on the transactions being recognized if they are included in the budget and if a budget is available while the respective response rate for the “YES” group was 80% which implied a more flexible position on the particular statement. Alternatively, it is possible that a stricter application of the principles of accruals to questions C57 and C58 could provide

answers ranging to 100% and 0% respectively. However, it is worth noting that for question C57 the response rate is only 25%. Thus, the positive responses for assets, expenses and revenues that are accounted for on the basis of accruals appear to be closely aligned to this result. Therefore, it may be implied that the respondents who agree with the statement in question C57 are indeed those who use the principles of accruals.

	TOTAL RESPONDENTS						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C6	Financial reporting						
C61	Annual financial statements are prepared	16	1	1	16	1,00	,000
C62	Short term (trimester basis) financial statements are prepared	16	0	0	0	,00	,000
C63	Financial statements are audited	16	0	0	0	,00	,000
	TOTAL MEAN					33%	

Table 6.20: Descriptive statistics regarding financial reporting for total respondents.

	GROUP "YES"						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C6	Financial reporting						
C61	Annual financial statements are prepared	5	1	1	5	1,00	,000
C62	Short term (trimester basis) financial statements are prepared	5	0	0	0	,00	,000
C63	Financial statements are audited	5	0	0	0	,00	,000
	TOTAL MEAN					33%	

Table 6.21: Descriptive statistics regarding financial reporting for GROUP "YES".

The results in tables 6.20 and 6.21 are unanimous. All the respondent HEIs in both groups prepare annual financial statements regardless of the accounting framework followed for the purposes of their preparation. However, none of them prepares any short term financial statements. Finally, the financial statements produced annually are

not being audited in any HEI. As already mentioned, it is only expenditures that are being audited by governmental auditors prior to granting authorization to proceed to their payment.

	TOTAL RESPONDENTS						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C7	Receivables						
C71	Records of amounts due to you in respect of revenue earned are maintained	16	0	1	5	,31	,342
C72	An assessment of what debtors are likely to exist can be provided	16	0	1	5	,31	,447
C73	Balances of debtors can be provided	16	0	1	16	1,00	,250
	TOTAL MEAN					54%	

Table 6.22: Descriptive statistics regarding receivables for total respondents.

	GROUP "YES"						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C7	Receivables						
C71	Records of amounts due to you in respect of revenue earned are maintained	5	0	1	2	,40	,548
C72	An assessment of what debtors are likely to exist can be provided	5	0	1	2	,40	,548
C73	Balances of debtors can be provided	5	1	1	5	1,00	,000
	TOTAL MEAN					60%	

Table 6.23: Descriptive statistics regarding receivables for GROUP "YES".

The replies on question C71 (Table, 6.22) indicate that 31% of the total respondents HEIs group maintain records of amounts due with respect to revenue earned as compared to a rate of 40% for the "YES" group. An assessment of what debtors are likely to exist can be provided by a larger part (31%) which may derive from the percentage of the accrual accounting 'implementers'. Accordingly, the respective figure for the "YES" group is 40% and may be attributed to the partial implementation of the

new system. The vast majority (100%) of both the respondent HEIs group and the “YES” group is able to provide figures regarding the outstanding balances of their debtors. This is explained by the fact that this information can also be obtained from the cash basis accounting.

	TOTAL RESPONDENTS						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C8	Payables						
C81	Payables are recorded at the point at which goods and services are received	16	0	1	11	,69	,250
C82	A summary of each source of expenditure can be provided	16	1	1	16	1,00	,000
C83	An outline of how the amounts are currently recorded in the accounting records can be provided	16	1	1	16	1,00	,000
	TOTAL MEAN					89,7%	

Table 6.24: Descriptive statistics regarding payables for total respondents.

	GROUP “YES”						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C8	Payables						
C81	Payables are recorded at the point at which goods and services are received	5	1	1	5	1,00	,000
C82	A summary of each source of expenditure can be provided	5	1	1	5	1,00	,000
C83	An outline of how the amounts are currently recorded in the accounting records can be provided	5	1	1	5	1,00	,000
	TOTAL MEAN					100%	

Table 6.25: Descriptive statistics regarding payables for GROUP “YES”.

According to the payables statement (Table, 6.24) the reply in question C81 (69%) implies that the majority of the respondents HEIs record payables at the point at which goods and services are received and not ordered. This is explained by the fact that the government’s auditors need to approve the expenditure and see evidence of the relative

documents before the issuance of authorization for payment. All the respondents HEIs shown in the “YES” group replied unanimously (100%) that they are able to provide a summary of each source of expenditure and also to provide an outline of how the amounts are currently recorded in their accounting records irrespective of the followed accounting method. The only difference is that for statement C83 the ‘YES’ group is able to provide more analysis in terms of how amounts are recorded due to the implementation of the new system.

	TOTAL RESPONDENTS						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C9	Cash and cash equivalents						
C91	All bank balances maintained are recorded and reconciled at the period end	16	1	1	16	1,00	,000
C92	A schedule of cash and cash equivalents at the period end and can be provided, showing the account details and balances held	16	1	1	16	1,00	,000
	TOTAL MEAN					100%	

Table 6.26: Descriptive statistics regarding cash and cash equivalents for total respondents.

	GROUP “YES”						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C9	Cash and cash equivalents						
C91	All bank balances maintained are recorded and reconciled them at the period end	5	1	1	5	1,00	,000
C92	A schedule of cash and cash equivalents at the period end and can be provided, showing the account details and balances held	5	1	1	5	1,00	,000
	TOTAL MEAN					100%	

Table 6.27: Descriptive statistics regarding cash and cash equivalents for GROUP “YES”.

The bank balances are recorded and reconciled at the end of each month by all HEIs (100%) as they also provide a schedule of cash and cash equivalents at the period end.

This is unanimous for all HEIs in both groups and takes place irrespectively of the implemented accounting system. HEIs as all the public sector entities are not obliged to create a cash flow statement on a monthly basis. The major difference in the “YES” group is that the new system can provide the information in a more analytical manner and even before any period end while it provides the opportunity to create a cash flow statement at any given time.

	TOTAL RESPONDENTS						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C10	Costing						
C101	Cost centres/pools/objects and structure are clearly defined	16	0	1	3	,19	,403
C102	The cost of capital is calculated	16	0	1	1	,06	,250
C103	Direct and indirect cost is calculated	16	0	1	3	,19	,403
C104	Fixed and variable cost is calculated	16	0	1	3	,19	,403
C105	Costing updates are calculated	16	0	0	0	,00	,000
	TOTAL MEAN					12,6%	

Table 6.28: Descriptive statistics regarding costing for total respondents.

	GROUP “YES”						
	Statements	N	Min	Max	Sum	Mean	Std. D.
C10	Costing						
C101	Cost centres/pools/objects and structure are clearly defined	5	0	1	3	,60	,548
C102	The cost of capital is calculated	5	0	1	1	,20	,447
C103	Direct and indirect cost is calculated	5	0	1	3	,60	,548
C104	Fixed and variable cost is calculated	5	0	1	3	,60	,548
C105	Costing updates are calculated	5	0	0	0	,00	,000
	TOTAL MEAN					40%	

Table 6.29: Descriptive statistics regarding costing for GROUP “YES”.

In statement C101 (Table, 6.28) only 19% of the respondent HEIs have applied cost accounting to a certain extent while for the same statement the “YES” group provided a significantly higher rate of 60%. This result is closely aligned with the result in questions C103 and C104 which show the same percentage figure for both groups. The reason for this is that the HEIs that have implemented accrual accounting do calculate direct, indirect, fixed and variable costs while they have clearly identified cost centers, pools and objectives. The cost of capital is calculated only by 6% of the respondents due to the fact that capital is provided by the government through the yearly funding scheme and it thus renders the calculation of the cost of capital meaningless. This also explains the 20% rate provided from the “YES” group for the same statement with the difference being that HEIs in this group can more efficiently calculate the cost of capital as they have implemented costing widely and more analytical.

Descriptive Statistics GROUP “YES”						
	N	Minimum	Maximum	Sum	Mean	Std. Deviation
C	5	,59	,76	3,29	,6585	,06379
Valid N (listwise)	5					

Table 6.30: Descriptive statistics regarding section C for accrual accounting use from GROUP “YES”

Finally, descriptive statistics in table 6.30 present in total the use of the accrual accounting and the new routines that have been actually experienced on a daily basis. It is evident that although all the HEIs in the ‘YES’ group have implemented the accrual accounting system, only a part of them (66%) have actually used the accrual principles on their daily accounting practices.

6.4 Summary

As it is mentioned, the aim of the current chapter is to gather knowledge on how MA change has been experienced by each individual HEI under the influence of intra organizational dynamics emerged on a micro- level within the organization. Thus, a micro- level analysis of the institutional and change dynamics activated towards the implementation of the accrual accounting and forming the response of each HEI has been attempted. For this reason, this chapter presented and analyzed the findings of data collected via a structured questionnaire survey in thirty eight public Greek HEIs (universities and TEIs) regarding middle- management perceptions for the experienced MA change during the decade 1998-2008. In addition, findings of data collected has been analyzed mirroring the extent in which daily accounting practices have been adopted towards the full implementation of the accrual accounting system within each individual Greek HEI. In addition, findings of data collected has been analyzed mirroring the extent in which daily practices have been adopted towards the full implementation of the accrual accounting system within each individual Greek HEI. As it is indicated out of thirty eight distributed structured questionnaires, sixteen questionnaires were completed and returned. These questionnaires represented sixteen HEIs and thus yielded a 42% rate of response of the Greek HEIs included to the survey considered as being an efficient response rate.

The analysis of section A of the structured questionnaire indicated that a percentage of 45% of the responding HEIs were universities and 38% were TEIs. The respondents HEIs have fallen into categories such as: old (48%), urban (57%) and large (78%). From the respondents HEIs $n=16$) a rate of 31% ($n=5$) have full implemented the

accrual accounting system (GROUP “YES”) while a rate of 69% (n=11) have not implemented the new system (GROUP “NO”). However, according to the total number of the Greek HEIs that they have implemented the accrual accounting system (n=11) a rate of 45% (n=5) have answered the questionnaire considering as an efficient response rate in order to provide accurate results. Regarding the starting time of the implementation a rate of 50% of the total number of the Greek HEIs implemented the new system until 2001 have answered the questionnaire (n=3) while the corresponding rate of the total number of HEIs implemented the new system from 2001 onward is 40% (n=2).

Finally, the analysis of the last question (A6) concerned the institutional forces pressuring/assisting for the adoption of the new system. According to the findings analysis it is suggested that the coercive and normative forces express a high level of perceptions deviation, with ranging views between not assisting (68,8%) to assisted markedly (31,3%) towards the adoption of the accounting change. This deviation may reflect the different perceptions between the HEIs that have implemented the new system and those that they have not, with the former having experienced high level of the coercive and normative pressures and the latter having experienced no coercive or normative pressures. Contradictory, the mimetic force reflected by the positive HEIs examples, seems that did not assist toward the adoption of the new system, independently of the implementation or not of the new system. Consequently, by the results of the findings analysis the two first research questions have been answered:

1. To what extent did government exert pressures on the Greek HEIs to change their existing MA system, for example to implement the accrual accounting system?

2. To what extent did Greek HEIs respond to the isomorphic pressures to change their existing MA system, for example to implement the accrual accounting system?

In turn, the analysis of intra organizational dynamics has further explained the attempted MA change and the experienced intra organizational forces, as they perceived by the involved member staff in each individual Greek HEI. According to the findings of section B of the structured questionnaire the means rate has been approved to be reduced following the starting Encoding/Motivating phase towards the ending Reproducing/Institutionalizing phase. This tension implies reasonably that even though the MA change had been attempted initially and the first phase of the MA change had been experienced by a number of HEIs, in turn, it may not be implemented finally at all or it may be implemented partially. In these cases, having no fully adopted all the change process, step by step, respectively to the theoretical frame supported by the current study, the progress of the change process has been fallen down partially or totally. The findings analysis, confirmed, at the same time, by the principal component analysis, implies that the three phases of MA change have been strongly correlated, influencing to each other consecutively. In this way, the intra organizational dynamics that have been activated in each HEI seemed to affect the attempted MA change, driving thus the whole process from the starting point to the end of the MA change process. The third research question concerning the way the intra organizational dynamics influence the accrual accounting implementation has been answered by the above analysis:

3. How did intra-organizational dynamics such as institutional dynamics and change dynamics influence the accrual accounting system implementation?

Finally, the analysis of section C findings provided evidence of the extent of the accrual accounting daily practices investigating thus the implications of the intra organizational dynamics in each individual HEI according to the institutionalization of the new practices and the new routines up rising as taken for granted answering thus the fourth research question:

4. To what extent did intra organizational dynamics result in using new routines of accrual accounting system within Greek HEIs?

Following, the above results of the survey analysis will be used in the final chapter (Chapter 8) in order to be integrated and harmonized with the results derived by the empirical findings of the content analysis (Chapter 5) as well as the results of the semi-structured interviews which will be analyzed qualitatively in the chapter that follows next (Chapter 7).

CHAPTER 7

Interviewing of Management Accounting change

7.0 Introduction

A micro- level analysis of the institutional and change dynamics activated towards the implementation of the accrual accounting and forming the response of each HEI has attempted in previous chapter (Chapter 6). In particular, previous chapter has presented and analyzed the findings of data collected, via a structured questionnaire survey. Middle- managers in sixteen public Greek HEIs (universities and TEIs) were participated and expressed their perceptions on the experienced MA change during the decade 1998-2008. In addition, findings of data collected have been analyzed mirroring the extent in which daily practices have been adopted towards the full implementation of the accrual accounting system within each individual Greek HEI.

Following, the aim of the current chapter is to present gathered complementary information through undertaking semi-structured interviews from the financial departments' Directors of HEIs. This information will be a valuable source that will contribute complementary to the findings derived from the previous stages of the current study in explaining in depth the phenomenon under investigation. The interviewees participated in this phase were financial departments' Directors. The interviewees were chosen, similarly to the previous stages of the study, on the basis of their experience and their deep knowledge on and about the attempted MA change and the implementation of the accrual basis accounting system in their organisations. They

have been considered as top managers and accurate informants, discussing in depth perceived external forces and intra organizational dynamics activated towards the adoption and application of the new system and the extension they resulted on new daily accounting practices and routines. The following sections describe in more detail the relevant activities related to the design and development of the interview protocol, data collection and the data analysis based on in depth interviews.

7.1 Interview protocol development

Respectively to the research problem, interviews were intended to determine the degree of adoption of the accrual basis accounting system by the Greek HEIs and the intra organizational dynamics that had motivated and influenced its implementation under the external institutional pressures, guiding thus to new daily accounting practices and routines. In this vein, the content of the interview protocol (Appendix III) focused on the theoretical framework of this study and on the quantitative results that derived from the second phase of the current study. Questions were designed and asked about external pressures and intra organizational forces as well as the accrual accounting practices used on a daily basis within each individual HEI. Fourteen open-ended questions divided into three sections explored the role of coercive, normative and mimetic forces in the adoption of the accounting change and the implementation of the accrual basis accounting system and the new practices of accounting under the intra organizational dynamics activated within institutions. Firstly, three questions were posted in section A securing the involvement of the interviewees in the accounting change process since it was initially experienced and the implementation of the accrual accounting system in each individual HEI. In turn, regarding to institutional pressures,

eight questions were used in section B aiming to detect the existence of particular forces enabling initially or later towards the adoption of the accounting change and the implementation of the new system. Further, in the final section C three questions were placed. They have been designed in aiming to discuss the extent to which the intra organizational dynamics that have resulted to the implementation of new daily accounting practices and routines in each individual HEI that has implemented the new accounting system.

7.2 Collecting and analyzing data quality issues

Validity/credibility and reliability/dependability of data collection and analysis was secured by applying appropriate methods during the interview phase. First, the interview protocol, even though it was based on previous existing instruments relative to this study, was piloted and tested in order for its validity/credibility to be improved. The interview protocol was piloted on five participants. The interviewees were the same individual who had participated to the survey pilot study. The results of the analysis indicated that the interview questions were perceived in the same way by the participants as they were by the researcher. Furthermore, there were no questions calling for further explanations and thus the research instrument has not been revised. Following, the detailed description of the data collection has aimed to the improvement of the reliability/dependability of findings.

7.3 Sample

The questionnaire has been designed in order to collect data from the Directors of the Greek HEIs' financial departments, who have been regarded as the key informants due

to their prior and current position. The selection of this senior group of interview participants was made on a similar basis such as in the survey empirical phase. In this vein, the database for this interview phase included ten financial departments' Directors of the sixteen respondents HEIs in the survey phase of the empirical study, representing seven respondent universities and three respondent TEIs. The selection of the sample was based on the view of gathering data comparable with the findings of the survey empirical phase and in this vein financial departments' Directors were selected by the respondent HEIs. All participants interviewed were volunteers participating in interviews with pleasure and providing accurate information with respect on the posted questions.

7.4 Data collection

The collection of data was performed during face to face interviews with the Directors of financial departments' and was created from the open responses to the structured questions posted to the interviewees. The interviews were undertaken from January to June during 2009. Starting the interview, the researcher explained to each interviewee the aim of the current study and the particular goals of the interview. The duration of each interview was designed to last approximately one hour and they were conducted face to face with the interviewees in their workspace, by visiting each institution participated in this phase of the study. The interviews were in-depth and the researcher had to make multiple visits in the institutions in order to complete and collect the interviews. The reason for this hardship was due to the limited available time of the interviewees and/or the unexpected interruptions, as the interviews took place in the workspace of each one of them. Despite the scheduled interview times, the peculiarities

of the work environment in Greek HEIs caused delays, interruptions and cancelations of the interviews. The interviews took place during a period of six months, from January to June of 2009, into two sub-periods. The first sub-period unfolded from January to the end of April with representatives from ten HEIs participated at this stage. In turn, the interviews continued extensively with five of the participating HEIs during May to June aiming to further gathering information. Finally, after six months of hard efforts, the data collected and it was translated into English and checked by two Greek professors of English literature. It was summarised, analyzed and reported by hand according to themes and issues identified by the questionnaire.

7.5 Data analysis

The data were analyzed by hand against each category of themes respectively to the questionnaire. In the following sections, interviewees HEIs have been portrayed in coded form such as U1, U2, U3, U4, U5, U6 and U7 for universities and T8, T9 and T10 for TEIs, in order their anonymity to be secured so as to protect their integrity and privacy. Each of the following sections discusses the addressed questions and the responses provided by the interviewees in a smooth way in order to better understanding the issues under investigation.

7.5.1 Section A: Presenting interviewees

According to the occupation of the interviewees at the financial departments, all the interviewees have been working at the financial department of each individual institution since the issuance of the P.D. 205/98 and had been involved from the beginning of the MA change process as Heads of the financial department or even as

Directors. In particular, in the cases of HEIs which implemented the new system post 2001, the representative interviewees were at that time Directors of the financial department of the institution. In total, five interviewees (n=5) represented respondent HEIs that have implemented the accrual accounting system and equally five interviewees (n=5) represented respondent HEIs that have not implemented the new system.

	Section A Questionnaire						
	A1 (Occupation in the financial department since 1998)		A2 (Adoption of the new system)		A3 (Involvement in the process)		
	YES	NO	YES		NO	YES	NO
HEIs			Before 2001	Post 2001			
U1	x	-	-	-	x	x	-
U2	x	-	-	-	x	x	-
U3	x	-	x	-	-	x	-
U4	x	-	-	x	-	x	-
U5	x	-	-	x	-	x	-
U 6	x	-	-	-	x	x	-
U7	x	-	-	-	x	x	-
T8	x	-	-	-	x	x	-
T9	x	-	x	-	-	x	-
T10	x	-	x	-	-	x	-
Total	10	0	3	2	5	10	0

Table 7.1: Section A Questionnaire according to the respondents HEIs.

Three of the implemented HEIs the new system (n=3) had adopted this before 2001 while two of them (n=2) had adopted this post 2001. The table 7.1 shows analytically the analysis of the findings of the section A of the semi structured questionnaire respectively to each individual respondent HEI, confirming thus the appropriateness of the collected sample respectively to the scope of this study.

7.5.2 Section B: Analysing the dynamics

7.5.2.1 Isomorphic dynamics

This section addresses the issues of the attempted MA change and the intra organizational dynamics which have influenced the adoption of the accrual accounting system in each individual Greek HEI under the external governmental pressure. The two first questions (B1 and B2) have been designed in order to investigate the enabling pressures for the adoption of the new system. The current study's test for isomorphic pressures was based on the adopted theoretical framework and it involved a study of the coercive, normative and mimetic pressures. In this vein, the interviewees were asked to express their opinion regarding the promoters of change and the further perceived pressure and/or motivation forward the implementation of the new system. The following statements were typical examples regarding isomorphic pressures:

Accrual accounting is not yet fully implemented by the majority of HEIs. There was no concern about this. (U1)

The new system of accrual accounting is hardly implemented by HEIs... they resisted to this change. Moreover, there was no further governmental pressure since the activation of the P.D. 205/98.(U2)

The P.D.205/98 called for the accrual accounting system's adoption but it failed to guide towards its implementation. There was no further pressure by the Ministry of Education. (U6)

There was not any kind of external governmental pressure.... the Ministry of Education tried to introduce it via the P.D. 205/98 but universities did not agree with it... thus the P.D. 205/98 encountered strong resistance... some HEIs accepted to implement the new accounting system voluntarily.(U7)

The deadline was in January 2001 but no one had implemented the law... I think that one or two universities had voluntarily tried to adopt the accrual accounting system.... Definitely, there was no further pressure by the Ministry of Education for its adoption. (T8)

Coercive pressure or any other kind of pressure did not seem to affect the adoption of the accrual accounting since this action was made voluntarily by some HEIs. All the above interviewees apparently stated that there was no pressure from the government for adopting the new system. They also did not refer to any other kind of pressure. However, some others, representatives of HEIs that have positively responded to the legislation, mentioned the perception of the lightly coercive pressure that has been emerged by the law, such as the following statements:

The application of the new accounting system should have been initiated from the first day the P.D. 205/98 was passed.....this would have assisted in avoiding the creation of an issue of legitimacy due to delaying its application. However, it was dictated by Law and as such we applied it and decided to proceed with the implementation..... (T9)

The implementation of the accrual basis accounting system was based upon a voluntary decision..... but one which followed the enactment of P.D. 205/98 (T10)

Another interviewee mentioned both the lightly coercive and mimetic forces supporting that:

The P.D. 205/98 was passed due to an initiative that originated from the Ministry of Finance and resulted in the mandatory adoption of the accrual basis accounting system Surprisingly and to the contrary, the Ministry of Education did not exert any pressure either towards its adoption or in monitoring the process overall. What actually motivated us to begin the implementation was the fact that other universities had already started implementing it (U5).

There was also an interviewee who highlighted the normative force perceived as enacting the adoption of the P.D. He supported that:

Our institution decided to implement the new system voluntarily and on the basis of it being beneficial. After all, the P.D was aiming towards the improvement of the accounting information provided both in terms of quantity and quality (U3)

Only an interviewee mentioned a further formal pressure which seemed to be derived from the Ministry of Education. He stated that:

The Ministry of Education was not very keen and supportive in the implementation of the new system. This became obvious especially at the beginning when we received a letter that was asking for our support in the implementation of P.D. 205/98 which was dated with a much later date than the actual date that the P.D. was passed. (T8)

The following statement reflected the perception of a combination of normative and mimetic forces. The interviewee, representing a HEI that had implemented the P.D. some years after the expansion of the posted deadline by the law, suggested that:

We decided to apply the new system late, in fact a few years after its actual application deadline. Those universities that implemented it timely claimed that they had succeeded in doing so. Our decision was made on the basis that it could be successful for us and compared to the traditional system it would facilitate in the provision of timely accounting information and also of more quantity and of improved quality. (U4)

The above statements of the interviewees seemed to imply that, due to lightly coercive pressures derived by the law, some of the Greek HEIs adopted the MA change since the

activation of the P.D. 205/98. The later adoption of the MA change seemed not being enforced by the law, but has been rather driven by normative and mimetic forces derived by the implementation of the new accounting system by other HEIs. Mimetic forces did not seem to have enforced initially the adoption of the MA change. Only one (n=1) of the interviewees suggested normative pressure. Normative and mimetic forces seemed to be perceived by a later adopter who suggested by his statement the existence of both normative and mimetic forces. Moreover, according to the mimetic forces, the interviewees commented that they followed similar HEIs examples in Greece without implications such as “best practices” or “positive examples”. The above findings are shown in the following table 7.2 based on interviewees’ answers regarding the perceived isomorphic pressures.

	Isomorphic pressures		
HEIs	Coercive	Normative	Mimetic
U1	-	-	-
U2	-	-	-
U3	-	x	-
U4	-	x	x
U5	x	-	x
U 6	-	-	-
U7	-	-	-
T8	-	-	-
T9	x	-	-
T10	x	-	-
Total	3	2	2

Table 7.2: Isomorphic forces according to the interviewees HEIs.

Furthermore, the analysis of descriptive statistics (Table, 7.3) support the findings derived by interviewees' answers. Means and sums of the coercive, normative and mimetic forces showed that a percentage of 30% (n=3) of the interviewees perceived lightly coercive pressure due to the P.D. 205/98 without perceiving any further coercive pressure initially or later. A percentage of 20% (n=2) of the interviewees expressed the view equally of normative or mimetic pressure perceived as enabling the adoption of the MA change.

Statistics of isomorphic forces				
		Coercive	Normative	Mimetic
N	Valid	10	10	10
	Missing	0	0	0
Mean		,30	,20	,20
Std. Deviation		,483	,422	,422
Minimum		0	0	0
Maximum		1	1	1
Sum		3	2	2

Table 7.3: Statistics of Isomorphic forces (Coercive, Normative and Mimetic).

7.5.2.2 Intra organizational dynamics

Following questions (B3 to B8) have been designed in order to investigate the intra organizational dynamics which had been activated for the adoption of the new system. The theoretical framework adopted in this study constituted the base due to which the test for intra organizational dynamics employed a study of three types of dynamics: motivating/encoding change, managing/enacting change and reproducing/institutionalizing change. In this vein, the interviewees were asked (questions B3 and B4) to express their opinion regarding the previous existing accounting system, the perceived necessity and importance of the proposed accounting

change and the reaction of the involved employees to the accounting change. This discussion has been expected to guide to implications regarding the encoding/motivating dynamics considered as mirroring the first phase of the accounting change process emerged within each individual HEI. In turn, the discussion employed questions (questions B5 and B6) about the enacting/managing dynamics concerning the supportive role of top management, as well as, the knowledge and experience of the evolved employees and the professional assistance supporting the implementation of the new accounting system. Finally, questions had been discussed (questions B7 and B8) investigating the reproducing/institutionalizing dynamics which refer to the use of best practices mimicking positive examples and the enforcement of using new accounting practices in a daily basis.

7.5.2.2.1 Motivating/encoding change

According to the accounting system used before the enactment of the P.D. 205/98 or still is in use, all interviewees answered that the only form of accounting they have ever used was the State Budget Administration System. It was the accounting of budgeting on a cash basis. Questioning about their satisfaction from the traditional accounting system and the need of change some of them discussed that they were generally satisfied from using the cash basis accounting system, as no concern there was about more specific information than the annual budgeting. The budget was prepared according to specific guidelines imposed by the Ministry of Finance and the Ministry of Education that applied to all HEIs. The annual budget was submitted for approval to the Ministry of Education. In addition, it should always be balanced through the requested subsidy. The following examples stated by the interviewees:

Indeed, change was sparked by P.D. 205/98. However, the Ministry of Education and accordingly we were satisfied and comfortable with the existing system and the information it could provide in terms of time, quantity and quality (U1)

Today, despite the enactment of P.D. 205/98 and despite the new guidelines across the entire public that have been put in place by the Ministry of Finance, we continue to prepare and submit our budget to the Ministry of Education for approval and validation in the same manner as before. (U6)

Some of the interviewees were not convinced by the driven goals of the legislation. They suggested that the attempted MA change in public entities was a political decision not based on the idea of actually changing management of public organizations. The following interviewees' examples support these implications derived by statements such as:

It was a political decision... In my opinion it was not actually driven by the vision of changing how the public entities, including HEIs, are actually managed..... It was the P.D. 205/98 that activated us towards this decision. (T8)

Unfortunately, we were not asked to participate actively in the process of the decision. It was a governmental decision and regulation as well.... Indeed, the people involved were not considerate at all about our actual needs. (U7)

However, some of the interviewees stated differently expressing the perception of changing funding conditions and the finance functions alignment.

The initiative of the Ministry of Finance which resulted in the P.D.205/98 was not coupled with the necessary funding and this challenged a great deal the existing budgetary limitations of the Greek HEIs. This added an extra good reason for the implementation of the new system and the abandonment of the previous one....(U5)

There was... and still is... a visible need for change due to the changing government policy and funding. Thus, we need to reform the university financial functions. (U4)

Our institution should have made faster steps in the direction of adopting the new system. The need was imminent as the government funding was decreasing on an annual basis and more accounting information was required to report in our budget. Clearly, the adoption of the new system was both a necessity and a challenge (U3)

Actually, a percentage of 40% of the interviewees did not supported the necessity or importance of the adoption of the new system discussing their satisfaction of the existing traditional accounting system or their doubt of the ideological basis of the political decision. However, a rate of 60% of the interviewees posted a contradictory perception expressing the necessity of change, as structure changes had been observed in the organization, driving thus to financial function changes.

Questioning about the employees' reaction to the change, interviewees' perceptions aligned their perceptions about the satisfaction of the existing accounting system with the negative reaction of the involved employees with statements such as:

Obviously my colleagues were not willing for this reform. Actually, they did not trust the new system... they did not believe in the benefits to be gained by its implementation. I think that part of this doubt was due to the P.D. 205/98 and the lack of a sufficient plan and goal. (T8)

Accounting change was hindered and resisted by the staff involved. It was thought to be a very complex process that needed specific knowledge and skills.... Staff did not feel confident about managing it as well as the entire change process. (U6)

What became clear by the statements of the interviewees who expressed the negative reaction of the involved employees of financial departments was their doubt as to how far and in what direction the new system and information provided would be useful to the financial function of the institution given the annual budget approved by the Ministry of Education on a cash basis.

There was no interest in changing the process but rather in maintaining the existing one as no one seemed to be willing to utilize different accounting information than the information used so far. (U7)

The opening of the change process was not received positively from the staff as they proved very reluctant to any adoption...as the general feeling was that there was no obvious benefit by the time the budgetary process remained the same. (U1)

An explanation of the negative reaction in adopting the new MA systems was well provided by a Director in the interview extract that follows below:

The implementation of the new system required additional resources to be allocated as the burden of work would increase in order to install the new processes and transform practices to accommodate the new system. Existing staff would not be given any further credit and business would be carried out as usual on top of the existing workload and duties and together with the fact that there were no additional resources to be allocated made staff very reluctant and negative towards this change.(U6)

However, there was evidence from some interviews that the involved staff had welcomed totally the new accounting system or in some cases light reaction was noted referred to the employees' educational background, such as:

The introduction of the new accounting system was well received by all staff as they had already felt the need for a new system that would improved the financial operations. (U5)

Staff was very open minded and progressive and thus they favoured the introduction of the new system as they believed would facilitate and upgrade the existing process of budgeting and controlling. For this reason, they approached change in a friendly manner. (U3)

The new system in order to be implemented would require from staff to possess and develop the necessary experience, education and skills. On the other hand, staff with not a relevant background and skills would not favour this change ...it would be 'foreign' and not useful without any obvious benefits to be derived (T10)

In total, four interviewees equally expressed the emerged resistance of the involved staff due to their doubt for the usefulness of the new system or to their educational background. Contradictory, six of the interviewees supported that the involved staff welcomed the implementation of the accrual basis accounting as they had understood its importance in the provision of accurate financial statements and management information.

The above findings regarding the motivating/encoding dynamics of the attempted change within the HEIs are demonstrated clearly in the table 7.4 showing the different perceptions such as the two sides of the coin. It is obvious that interviewees who expressed the perception of satisfaction from the traditional system they similarly expressed the perception of involved staff negative reaction.

	Motivating/encoding dynamics			
HEIs	Satisfaction	Need of change	Positive reaction	Negative reaction
U1	x	-	-	x
U2	-	x	x	-
U3	-	x	x	-
U4	-	x	x	-
U5	-	x	x	-
U 6	x	-	-	x
U7	x	-	-	x
T8	x	-	-	x
T9	-	x	x	-
T10	-	x	x	-
Total	4	6	6	4

Table 7.4: Motivating/encoding dynamics according to the interviewees HEIs.

The above findings also are also supported by the descriptive statistics in table 7.5 showing that respectively to the means and sums a percentage of 40% (n=4) of the respondents posted perceptions of satisfaction with the use of the traditional existing accounting system and of negative reaction of the employees related to the attempted accounting change. On the other side, a percentage of 60% (n=6) of the respondents expressed the view that there was perceived the need for change and a positive reaction of the involved employees.

Statistics of motivating/encoding dynamics					
		Satisfaction	Need of change	Positive reaction	Negative reaction
N	Valid	10	10	10	10
	Missing	0	0	0	0
Mean		,40	,60	,60	,40
Std. Deviation		,516	,516	,516	,516
Sum		4	6	6	4

Table 7.5: Statistics of motivating/encoding dynamics.

From the above findings it is seemed that in the later cases the motivating and encoding dynamics had been activated within the organization demonstrating the need for change and the usefulness of the new system, enabling the positive reaction of the involved employees and enhancing the progress of the change implementation. Comparing both tables 7.1 and 7.4 it is obvious that mainly HEIs that have implemented the new system have expressed perceptions of the need of change and positive employees' reaction. Contradictory, HEIs that have not adopted the accrual accounting system have expressed negative perceptions of the need of change and equally a negative employees' reaction to the application of the new system. In these cases, it is seemed that both motivating and encoding dynamics had not been activated towards creating the need of change and enabling the positive reaction of the involved staff hindering thus the progress of the MA change process.

7.5.2.2.2 Managing/enacting change

Furthermore, many interviewees, discussing about top management's role in the implementation of the new system and in the assurance of a sufficient processes and the resources available, identified a lack of direction initiating from top management towards the MA change, as contributing to the loss of interest and to the doubts regarding the benefits associated with the accrual basis accounting. The following statements reflect these perceptions describing the interest, intentions and decisions of the council in each individual HEI.

I think that the accounting reform and the implementation of the accrual accounting system was not finally perceived as a core task... they did not feel that they should be

willing... and even more responsible for this change.... I think that P.D 205/98 had not convinced about its potential benefits.(T8)

Definitely, there was no interest from the part of the top management. They did not promote it at all and neither supported the adoption of the accrual accounting... there was no change effort at all. (U2)

The staff involved in this process was not quite motivated from the top management. I think that this resulted in the failure of the required change. Without strong motivation people are not willing to change... and this change needed a strong effort but people were not convinced by anyone for this....top management did not enact people towards a change effort. (U6)

University top management, the council, constitutes of academics....as a result they cannot fully understand the meaning of the accrual accounting principles and the usefulness of the new system in the financial function of the university. Consequently, they did not pay any attention to this issue... Actually, they ignore it as not being of major importance. (U7)

The implementation of the new system required the commitment of additional resources but a proposal to approve them was not voted by the Council as they deemed that this particular change was senseless and unnecessary (U1)

Additionally, some of them further explaining the perceived attitudes posted statements, such as:

I think that the Council was positive towards change. However, people involved in the implementation of change did not support this view. They reacted negatively..... and they were the main actors..... (U1)

I believe that the lack of trust in the usefulness of the new system is an important parameter..... I also think that they were also concerned about the people attitudes

.... They did not want to challenge people in fear of triggering negative reaction to change.... Thus, they did not actually promote change. (U7)

There was also a Director's statement such as:

There was not willingness from staff to promote and take further the change despite the Council's support and the approval of the allocation of the necessary resources (U6)

On the other side, some interviewees discussed the positive role of top management's role towards in the implementation of the new system. They stated that due to the supportive budgeting decisions or the innovative approach to the attempted change they prompted and sustained this, such as in the following cases:

In my opinion, top management's role was catalytic to this change. They strongly supported the change effort and this attitude finally changed the initial negative reaction of the people involved in change process. (U5)

The Council was wondering about the cost of the implementation of the new system but finally they decided to fund it.... it was the law that required its implementation. (T9)

The promotion of the change process was assured by the Council.... But we also needed their support and commitment in this respect. (U3)

Actually, six interviewees provided evidence of supporting decisions by the top management for the adoption of the new system, while four of them considered the councils' decisions as hindering the attempted MA change. Even though three of them

justified the suspending decisions, they did not refute that these resulted to the failure of the attempted MA change since its beginning.

According to the involved staff educational background and the external professional assistance supporting the implementation of the new accounting system, most of the interviewees revealed the limitations of human resources, both in the number of staff involved in the change process and the skills available. They explained that it was the council's duty to ensure the required resources and they had not the authority to act for hiring professional assistants or providing training to the involved personnel. In the following statements they explain that:

Any additional resources required would have to be approved by the Council as it has the sole authority to do so. (T9)

We were not able to manage the new system. The existing operational system was not suitable to support the new accounting system... it seemed to be very difficult for us... Top management did not support our effort to implement change. (T8)

Some of them also stressed the unfamiliarity of the staff regarding the use of the accrual accounting system and its operation or the need for additional staff embedded to the changing process due to the complexity of the new system. They provided that there was an imminent and obvious need for a professional assistance that would contribute positively towards the development and the reform of the MA system. They also provided that there was a similar type of need for staff training in order to preserve the normal and every day functioning of the new accrual basis accounting system on a routine daily basis. As a result, they blamed top management that ignored these needs.

It needed professional training and support but top management did not concern about it... it was not a priority...(U6)

A Director's statement justified that:

There was adequate supply of the relative operational systems... the IT resources. However, it should be used by the staff in the financial department. They knew the financial structure very well...but they did not know to manage the new system... it was an emergency for staff to be trained intensively. (U1)

However, there were statements that highlighted that training programmes had been undertaken in order to support the attempted MA change and to reduce the unawareness of the new accounting system operations. For example, some interviewees stated that:

Professional support from the private sector was sought to provide the necessary training, manpower and assistance. (U3)

The staff involved in the change process was fully supported by a contracted private professional firm which also provided the required training in the existing workplace with the allocation of experienced personnel on site to work along with our staff. It was clear and obvious that top management was very serious and supportive in making the change effort a successful one. (U5)

Totally, three of the interviewees revealed the professional assistance and training of the involved staff, while seven of them noted that there was not any provision of assistance or training regarding the use and the operation of the new accounting system, even though there was an explanation of the obstacles in moving additional staff to the financial department due to the particular knowledge needed for the financial operations.

The above findings regarding the managing/enacting dynamics of the attempted change within the HEIs are demonstrated clearly in the table 7.6 showing the posted perceptions by the interviewees.

	Managing/enacting dynamics			
	Top management's role		Professional assistance and training	
HEIs	Positive	Negative	YES	NO
U1	-	x	-	x
U2	-	x	-	x
U3	x	-	x	-
U4	x	-	x	-
U5	x	-	x	-
U 6	x	-	-	x
U7	-	x	-	x
T8	-	x	-	x
T9	x	-	-	x
T10	x	-	-	x
Total	6	4	3	7

Table 7.6: Managing/enacting dynamics according to the interviewees HEIs.

It is obvious that interviewees who expressed the perception of a supportive top management's role and a professional assistance and training were mainly represented HEIs that have implemented the accrual accounting system. The above findings are also explained by the descriptive statistics in table 7.7 showing the means and sums of both cases. A percentage of 60% (n=6) of the interviewees seemed that expressed positive perceptions regarding the top management's supportive role to the attempted accounting change, while only a percentage of 30% (n=3) agreed that training and professional assistance had been provided to the involved staff.

Statistics of managing/enacting dynamics			
		Top managemet's role	Professional assistance and training
N	Valid	10	10
	Missing	0	0
Mean		,60	,30
Std. Deviation		,516	,483
Sum		6	3

Table 7.7: Managing/enacting dynamics according to the interviewees HEIs.

However, as it is seemed, mainly from the table 7.6, only a percentage of 30% (n=3) of the interviewees HEIs have expressed perceptions of activated the managing and enacting dynamics regarding both the top management's support, as well as, professional assistance and employees' training. In these cases both top management's support, as well as, professional assistance and employees' training, reflecting the managing and enacting dynamics, ensured all the pre required resources in order the positive outcome of change management to be achieved. Opposite results are seemed to be gained in cases in which neither managing nor enacting dynamics have been activated fading out the change process.

7.5.2.2.3 Reproducing/institutionalizing change

Following, most of the interviewees supported the view that there were no positive examples to copy due to the unsuccessful adoption of the P.D. 205/98 even though the expansion of its deadline posted by the law. They referred to similar HEIs in Greece comparing their financial operations and their organizational structure.

There were no steps towards adopting P.D. 205/98...I do not think that there were positive examples to follow... some universities have already used the new system but there was no sound evidence of its successful application. (U6)

We were not convinced by the examples of others in being persuaded to adopt and implement the new system in an effort to improve the existing processes of budgeting and reporting. The claimed benefits were not enough to convince us... (U1)

We decided to implement the new system and support the change process but without any influence or as a result of mimicry (T9)

We pioneered in terms of adopting very quickly the new accounting system as we were certain about the derived benefits before hand. (T10)

According to an interviewee, the MA change was mainly perceived to be driven internally, even though the P.D. 205/98 was the starting point for this. This perception was expressed by the following comment:

The need for a reform and for accounting change was motivated and supported by members of the staff that had studied accountancy or had some experience from university administration systems abroad. They were convinced that the new system would prove to be beneficial for the financial function of the university. (U5)

There was also a Director connecting the main objectives of the new system with the influence of positive examples and who stated that:

Our decision to adopt the new system was a result of a reflective influence from other countries-pioneers and from other HEIs that had already made progress in this direction... (U3)

In total only two interviewees discussed the influence of positive examples mainly from other countries, not from similar HEIs in Greece. Even more, not copying or using similar best practices from similar HEIs in Greece. All the other interviewees shared the view that they did not have been influenced by positive examples or similar experience due to the limited adoption of the accrual accounting system or to the doubt regarding the positive results of the new system.

Regarding the last question of the interview about the enforcement of the application of the new accounting practices and their implementation in a daily basis, the five interviewees representing the HEIs that had not adopted the accrual accounting system replied negative to this without comments, as they had not experienced its implementation at all. The question was discussed with those interviewees who represented the HEIs that had implemented the new system and most of them discussed the limited use of the applications of the new system and the new practices on a certain period, such as:

Actually, some new accounting practices were introduced by the implementation of the new accounting system..... However, the existing practices are still in use. It was demanded by the law.. The use of the new accounting practices is limited... mainly for expenditures purposes. (T9)

The vast majority of these interviewees agreed overwhelmingly on the fact that it was difficult for non accountants to understand information based on principles of accruals. This was considered as an obstacle towards the effective use of the new accounting

system in decision making. They also provided evidence of the absence of any pressure or motivation towards the use of the new accounting practices on a daily basis.

I cannot say that it's being actually used.... Top management did not exert pressure on anyone. Even though the new system had been implemented the new practices were not used at all. Indeed, the new system was not used in order to help top management to manage their daily activities. (T10)

However, in some cases Directors emphasized the benefits of new accounting practices on a daily basis. They provided that the new accounting practices served as a financial operations guide and that they were also perceived to be beneficial both as a new accounting tool and also as a new managerial technique, providing benefits to the organization as a whole. For example, there were the following statements:

The existing operational systems underwent change and new practices were put into operation on a daily basis. Top management was not involved at all in developing the new accounting practices and in how to deal with these practices (U3).

The newly implemented system is put into operation and functions daily as planned. Top management is making use and relies on the new type of accounting information which facilitates the process of decision making. (U5)

In a total of five interviewees representing HEIs that have implemented the accrual accounting system, three of them agreed to the reproduction of the new accounting practices considering that they actually used in decision making processes by the top management of the institution. Two of them supported that the new accounting practices were not actually used as top management did not pressure either. The findings of the above interviews regarding copying of positive examples and the

enforcement of the application of the new accounting practices and their implementation in a daily basis are clearly presented in the table 7.8. In the table is shown that HEIs that have implemented the accrual accounting system expressed the view of copying positive examples and using the new accounting practices in a daily basis. These perceptions express the reproducing/institutionalizing dynamics activated during the attempted accounting change process in each individual HEI.

	Reproducing/institutionalizing dynamics	
HEIs	Copying positive examples	Using new accounting practices
U1	-	-
U2	-	-
U3	x	x
U4	-	x
U5	x	x
U 6	-	-
U7	-	-
T8	-	-
T9	-	-
T10	-	-
Total	2	3

Table 7.8: Reproducing/institutionalizing dynamics according to the interviewees HEIs.

The findings of the table 7.8 are supported by the descriptive statistics in the table 7.9, in which the means and sums demonstrate that a percentage of 20% (n=2) from the interviewing HEIs supported the view of copying positive examples from other HEIs in other countries, while a percentage of 60% (n=3) of the interviewees HEIs implemented the accrual accounting system stated that new accounting practices were used in a daily basis.

Statistics of reproducing/institutionalizing dynamics			
		Copying positive examples	Using new accounting practices
N	Valid	10	5
	Missing	0	0
Mean		,20	,60
Std. Deviation		,422	,548
Sum		2	3

Table 7.9: Statistics of reproducing/institutionalizing dynamics.

To summary, the above interviews, as clearly are presented in tables 7.8 and 7.9 confirmed the light existence of copying positive examples of similar or other organizations. They also posted that the new accounting practices were not exclusively used, operating in parallel with the traditional accounting system practices. Even though new accounting system has introduced within five HEIs, only three of them provided evidence of the new accounting practices using in a daily basis, providing financial information for decision making. In any case, it is important to note that the top management was not against the implementation of the new management accounting system, even though they did not pressure toward using them. Consequently, the reproducing and institutionalizing dynamics is seemed to be not activated broadly resulting to the limited institutionalization of the new accounting practices and the development of new routines within each individual HEI that has implemented the new accounting system.

Finally, in order to further understanding how institutional and intra organizational dynamics have been resulted in the creation of new routines the following section

discusses the extension of the provided accounting information used by the top management in each individual HEI adopted the new accounting system.

7.5.3 Section C: Resulting in new routines

In order to investigate the extension of the use of the accounting information provided by the new system and the development of new daily routines within each individual HEI, a series of questions were discussed with the interviewees Directors representing five HEIs that have implemented the accrual accounting. Interviewees were questioned to discuss about the usefulness of financial reporting and of the accounting information that were provided by the new system and the utility of financial information provided in decision making, budgeting and future planning purposes. The key role of the intra organizational dynamics has been explored thus and how they have resulted to the development of new accounting routines within each individual HEI.

7.5.3.1 Accounting information usefulness

Given the fact that the accrual accounting is an accounting system of depreciation on fixed assets, all the interviewees agreed in the utility of the new system in accounting of fixed assets and the accurate information provided, in terms of assets and liabilities. Focusing on achieving results and outcomes, more and accurate information was regarded to be necessary for more efficient asset management in term of resource management and decision making purposes. Furthermore, the asset register seemed to allow the uploading of such information and provided accurate accounting of fixed assets depreciation and useful life facilitating thus the management of assets, as it is witnessed in the following statements:

There were obvious limitations of the cash basis system in the reporting of fixed assets and specifically the description of their characteristics and of depreciation. By using the new system resource management and the decision making process can thus be facilitated and function more efficiently (U5)

The new system provides reliable accounting information about the financial position of the institution, its assets, their depreciation and liabilities. However, staff still needs to further develop their skills in order to fully implement it. (U4)

We need detailed information regarding our fixed asset base so that we would be able to plan for their replacement much earlier. The maintenance of the new asset register has helped in keeping very detailed information such as technical details, asset name, market price, description of useful life. (T10)

In addition, it has been clear from at least one interview that the accounting treatment of assets and control has been improved by asset register development commenting in this regard:

The top management of the institution needs timely and accurate accounting information regarding assets and the level of inventories. The asset register easily provides all this information and also with a great analysis and categorization so as to have an accurate and 'live' picture and at the same time to hold accountable those departments responsible for managing specific resources. (U3)

Advanced revenue and expenses recognition on an accrual accounting basis has also been discussed by all interviewees. The Greek HEIs are by law non profit legal entities and for this reason the management of revenues has never been an issue of great importance to them. The government is the sole provider of their revenues with the

exception of private donations. Therefore, the importance of revenue management seemed to vary between the Greek HEIs. This differentiation might be due to the fact that not all HEIs have valuable revenues from other resources besides government funding. This view revealed from the statement addressed by one interviewee who argued that:

The vast majority, if not the entire funding of the institution, derives and is reliant on the subsidy received each year from the Ministry of Education.....which actually decreases from one year to the next...in this sense better quality of accounting information would not mean more funding...it would not result to any particular change.... (T9)

On the other hand, the importance of providing efficient revenue and expenses management seemed to become crucial for some Greek HEIs mirroring the NPM principles which are making sure that public organizations have sufficient resources for their operation and for the achievement of their objectives. For example, the following statements have been posted:

The yearly decrease in our funding coupled with the increased financing needs and for the purpose of sustainability and growth have created the need to search for funding in alternative sources...(U3)

We have come to realize the full effect of accrual accounting in terms of when revenues and expenditures are realized and recognized and also how and when these are accounted for as receivables and as liabilities. In addition, expenditures on assets and equipment are accounted for as operational or capital ones depending on the nature of these (U4)

Costs are now allocated on a more accurate basis due to the different 'accrual' treatment on both revenues and expenses and this proves very helpful ...especially in cases that concern acquisitions and/or expenditures where large cash amounts are involved (U5)

Furthermore, receivables and payables accounts have been created to record some of the revenues owed to HEIs or expenses that might fall due. Given the importance of the management of assets and liabilities in public sector entities, similarly HEIs seem to be in need of having accurate knowledge of the receivables and payables so that they have the ability to pay their purchases. For example, some interviewees argued that:

The management of our cash flows has improved significantly and timely and accurate information is always available and provided in order to better manage cash and other financial obligations (T10)

Cash is now managed more efficiently and a balance is maintained between receivable, payables, cash available and anticipated needs in terms of cash flows (T9)

Finally, the all the interviewees mentioned the impact of the accrual basis accounting on the efficient management of liabilities, as it was considered to lead to an increased interest earned on HEIs' cash balances. More particularly it was mentioned that:

As it is an obligation by law to safeguard our deposits and available funds in a bank we can now make use of the advantages of the accrual system and provide an accurate and always up to date statement of cash flows which in turn yields in receiving a higher interest rate.(U4)

In relation to the engagement of the top management with the accounting information and its use on the decision making purposes, two of the interviewees confirmed that actually top management did not base the decision making process on the provided accounting information. There was broadly acceptance that all the time, the understanding of management, the assessment of information, and knowing what additional information to request and then utilizing them in the decision making process was at an early stage. The interviewees, also, stated negative perceptions when asked if the new system had or could lead to efficiency gains and consequently savings. One interviewee believed that the knowledge of top management was limited and that there was a very high level of scrutiny. Indeed, they claimed statements, such as:

Top management supported the implementation of the new system and they received the change very positively. However, they lacked the required knowledge and skills to interpret the information provided such as revenues and expenditures over a period of time which resulted in not using it at all...and this was a the expense of gaining space in terms of efficiency and sustainability (T10)

The lack of skills and knowledge deprived top management from the benefit of both understanding and making efficient use of the information provided following the implementation of the new system. ..This is not towards realizing the full benefits of the new system.....at least thus far.....it still cannot differentiate from the previous system which functioned well too..... (T9)

Even though the supportive perceptions of using the new system, doubts were expressed about using the accounting information provided to the decision making process. Similarly, top management's ability to understand what they were doing was questioned. One interviewee stressed on the importance that both the managers and the financial departments' staff understand the information being produced by the new

accrual basis accounting system towards a more efficient decision making. In particular, he stated that:

....the overall management of resources was still not fully captured due to the system's recent implementation....at the same time, people in the top management of our institution did not seem to be able to interpret and absorb the information provided due to lack of relevant skills and knowledge in the area of accounting and finance.... the process of understanding the new information is even hard for some staff who work in the finance department ...This fact has resulted in using the information provided by the previous system.(U4)

However, positive views have been provided from some interviewees who tended to be high on faith in terms of the benefits derived by the accounting information provided by the implementation of the new system. Two of the interviewees agreed that the provided accounting information was broadly used by the top management, even though there was neither pressure nor any interest from the side of the Ministry of Education in motivating them towards this direction. The following statements supported these perceptions, such as:

From my part I support this as the difference between the two systems appears to be the same as between the day and the night. The accounting information provided by the new system is favoured by the top management as they use it in the decision making process to cope with issues of financial nature. (U3)

With the implementation of the new system, processes such as budgeting and the strategy as a whole can be monitored and pursued more effectively and efficiently. (U5)

From the above discussion regarding the accounting information provided by the new system, its usefulness and the top management engagement in using this information in decision making, the results shown are rather contradictory. Even though all of the interviewees agreed the usefulness of the accounting information regarding fixed asset management, revenues and expenses recognition, receivables and payables management, only two of them provided evidence of the use of the provided accounting information for decision making purposes. Doubt also were shared about the value of the provided information due to the relied on cash based annual budgeting, the unawareness of the top management and the complexity of the system.

7.5.3.2 Providing costing information

Following, the interviewees were questioned to discuss the usefulness of accounting information, the follow up of costing accounting and the consequent resource allocation. One of government's main objectives for adopting accrual accounting lies in its ability to provide full costing information about the goods and services produced by the agencies and institutions of the public sector. As Greek HEIs were demanded to achieve efficiency, cost information would be necessary, especially in terms of economic and effective spending of funds. As a result, the legislated shift to an accrual accounting system with the P. D. 205/1998 was aiming towards the achievement of this goal through the provision of information on results achieved rather, than on resources spent. It was anticipated that cost information will play a key role in the measurement of HEIs' performance, in their cost management, as well as, in the future budgeting process. Budgeting based on costing information requires costing of HEIs output which should be totally quantified. However, the perceived value by the use of the new

accounting system with regard to costing accounting information was questioned by many interviewees, as it is shown in the following statements.

.....unfortunately there are no signs that top management is making full use of its capabilities of this tool even though the new system can cater towards improved efficiency by providing information of high quality (U4)

The accrual basis system has been implemented fully. It has remarkable capabilities compared to the cash basis system previously employed and as far as providing cost information is concerned it can report financial information about domain assets....the problem is that the costing function has not been fully implemented yet. (U5)

Nevertheless, one of the interviewees confirmed that:

In the new system separate and individual cost centres have been set up. These can easily be monitored and managed. Each one of the services is linked with a different cost centre. In turn, each cost centre can provide information in a quantifiable form for measurement purposes (U3)

With regard to pricing their services most of the interviewees mentioned the differentiation of the services provided by HEIs as compared to the goods and services delivered by the private sector. Implications were made for the difficulty with which the public sector is generally faced with in terms of measuring the quantity of the services provided. They also referred to the accuracy of using unit costs, such as the following statements:

The new system can quantify the cost of the services provided but the very nature of them makes it a very difficult task (T10)

Educational services cannot be easily accounted for due to the operating nature of the HEIs and the diversity of services rendered and the not for profit scope. However, it is very tedious to achieve the appropriate linking of services rendered with the respective indirect costs incurred and then allocate them on a per capita (per student) basis (T9)

Overlapping of services in multiple areas adds to the existing burden of indirect costs and overhead expenses that need to be allocated having thus a direct effect on the accuracy of unit costs (U3)

Further in the discussion, an interviewee commented on the usefulness of costing information in terms of a public funding rationale. According to this view, the usefulness of pricing services provided has no sense given the fact that students do not pay fees and the Greek HEIs are publicly funded institutions on a cash basis, as provided in the following statement:

I do not see the point in determining the cost of our services by the time we are funded based on the cash basis system and with different criteria than this which is not linked to any revenues as students do not pay any fees due to it being illegal according to the Constitution (U4)

In addition, the analysis of interviews provided that, although costing information was intended to form the basis for future budgeting purposes, it has not been utilised fully. For example, interviewees asserted:

The funding of HEIs unfortunately is not based on costing information, proper allocation of resources but rather on information based on the cash basis system. The Ministry of Finance provides the guidelines for budgeting and as a result the performance of each institution is ignored and the costing information is not taken into consideration (U3)

The process of budgeting should change and align with the accrual basis system. It is anachronic to still base budgeting on the previous system. The aim of the accrual system implementation has been to measure the effectiveness and efficiency of institutions and thus the allocation of resources based on the evaluation of costing output. Definitely, the rationale needs to change and shift towards the new system (T10)

The above view has also been supported by another interviewee:

The Ministry of education uses a specific formula to allocate the funding available to the HEIs and in this process it ignores all the information on costing management and efficient allocation of resources. Funding should depend on the measurement of performance otherwise why should we engage into the change process when there no sense in utilizing the outputs from it? (T9)

From the above discussion it was shown that there was no broadly and extended use of the provided costing information by the total interviewees HEIs, who implied the weakness of the system to present accurate cost information due to the particular no quantitative nature of the services provided by the HEIs. They also expressed the critical view that there is no major importance of using costing information since HEIs are still funding on a cash basis rationale.

7.5.3.3 Financial reporting

In general, all interviewees shared the view that the overall new financial structure introduced under the new system was considerably more complicated. More particularly, the rules regarding budgeting and the various boundary definitions were considered by some of them as problematical. They emphasized the fact that the accounting and budgeting boundaries were not well aligned together and argued that this was both an existent and continuing problem. In addition, they argued in another case on the insufficient resources capability, as hindering the further improvement of the management of the new structure. For example, some of them mentioned that:

Top management is problematized by the concurrent operation of both the cash basis and the accrual basis system. For the sake of avoiding complexity the cash basis should be abandoned completely as some annual estimates are still based and derived from it (T9)

The implementation of the new system has revealed certain 'hidden' areas with regard to the management of resources. Resource accounts had to be set up and now we are actually required to manage both the cash accounts and the resource accounts. Careful consideration needs to be made in handling the available cash as depreciation, cost of capital and the cost of managing the resources may inhibit from undertaking planned purchases or expansions. (T8)

The accrual system needs to be properly supported by an efficient IT system and by staff from the Finance department who are skilful and possess a certain degree of expertise in this area... (U4)

However, the P. D. 205/98 introduced the accrual accounting system in the Greek HEIs focusing on accountability and efficient resource use. Financial reporting have been considered by the law as being useful to decision making of top management regarding

efficient resource management and allocation, as well as, budgeting purposes and future planning. Balance sheets and annual reporting statements, including personnel and operational expenses, revenues and expenses reports should be provided by all HEIs to the Ministry of education, in an annual basis, in order to be assessed in terms of their performance and effectiveness. The interviewees suggested that they had already introduced structures and procedures for the purpose of reporting to the council. In some cases, it was very obvious that the practices being followed were positive about what they perceived as current practices, as shown in the following statement:

The implementation of the new system was an innovation with regard to financial reporting and as compared with the cash basis system. Timely information and of high quality is now provided which in fact has improved significantly the decision making process (U4)

The information derived from the accrual basis system is very valuable and useful especially for the processes of planning, budgeting and decision making (U5)

The process of reporting has clearly been influenced by the implementation of the new system. Prior to its implementation reporting and financial data were based on simple calculations while now the data provided is timely and based on actual facts (U3)

Financial statements were agreed as reflecting the accurate financial position of each HEI and this was expected to affect its future budgeting. In spite of, all interviewees highlighted that, even though financial reports and statements concerning the financial position of the institution are provided by the new accounting system, there is still in use the cash based accounting information provided to the council or the ministry of education for the formulation of the annual budgeting. The interviewees identified that

currently the budgetary system in Greece is solely based on the cash basis accounting system, rendering thus the use of accrual accounting information with regard to annual budgeting very limited. As it is shown in the following statements:

It is contradictory but in our institution we rely on the cash basis system in order to extract managerial information while for reasons of compliance we report the end of year financial statements based on the accrual system. The information included is only of use to us as the Ministry of Education is not interested in using it although we do send it to them too....this clearly indicates that the budget and the allocation of the funding is neither dependent nor facilitated by accrual accounting information (U5)

Being the Finance Department we need to comply with the Government Laws and the decisions of the institution's Council....for this reason the reporting of the statements is facilitated via the use of accruals and for not being held accountable for not doing so by the institution's Council. Ironically, most of the Council members prefer and actually use the information provided from the cash basis system while the Ministry of Education is not showing any interest at all (U4)

The Ministry of Education is still based on the cash basis system regarding the process of budgeting. We keep sending them the annual financial statements and report of the annual accounts but they replied only once to ask us the reason for sending the information to them...there was no point or logic in sending financial reports to them anymore after this...(T10)

For obvious reasons, under the new system, the amount of information reported to the Ministry of Education this year increased as compared to the same type of information reported under the previous system. Our belief was that the reported information would be utilized in the funding allocation process of the HEIs as we also did the same thing in the process of decision making. In case of a shortage in funds we could place a request for additional funding much earlier in order to avoid to forego any payments (U3)

It is disappointing for us to see that the Ministry's rationale behind the allocation of funding is still based on the cash basis system while we made our best efforts in showing managerial results based on performance output (T9)

The above view has also been supported by another interviewee:

The process of budgeting and the amount to be received is constrained by the level of the government subsidy to be allocated to HEIs, the priority agenda of the Government and the level of influence that each HEI individually can exert on the Ministry of Finance (T10)

The above discussion showed that the funding of HEIs is still performed in the same way it has always been, without considering what is actually achieved and if the funds have been utilized efficiently. Furthermore, one of the interviewees has challenged the degree of reliability of the operating result being reported regarding the balance between revenues and expenses as discharging accountability. As the interviewee explained:

Outcome reporting is of crucial importance but can be achieved only if it is based on measurable outcomes and adjusted appropriately to the services provided by HEIs. This way the issue of accountability is easing as the financial information provided is both reliable and credible (T10)

From the above discussion regarding the objectives of the implemented changed, in terms of using financial reporting, the usefulness of financial reporting was agreed in general and, in some cases, it was clear that practices were fairly positive about what they perceived as current practices. Actually, three of the interviewees provided evidence of the use of the financial statements by the top management mainly for

decision making purposes, while all of them stated that there is still in use the cash based accounting information provided to the Ministry of education for the formulation of the annual budgeting. The total findings are presented clearly in table 7.10, which shows the perceptions of the interviewees with regard to above discussion.

	Resulting in new routines					
HEIs	Accounting information usefulness	Top Management Engagement	Costing information usefulness	Resource Allocation	Financial Reporting usefulness	Accrual based Budgeting
U3	x	x	x	-	x	-
U4	x	-	-	-	x	-
U5	x	x	-	-	x	-
T9	x	-	-	-	-	-
T10	x	-	-	-	-	-
Total	5	2	1	-	3	-

Table 7.10: Resulting in new routines according to the interviewees HEIs.

The findings of the table 7.10 are also supported by the descriptive statistics in the table 7.11 in which the means and sums demonstrate that in total the interviewees supported the usefulness of the accounting information provided (100%).

		Statistics of resulting in new routines					
		Accounting information usefulness	Top Management Engagement	Costing information usefulness	Resource Allocation	Financial information usefulness	Accrual Budgeting
N	Valid	5	5	5	5	5	5
	Missing	0	0	0	0	0	0
Mean		1,00	,40	,20	,00	,60	,00
Std. Deviation		,000	,548	,447	,000	,548	,000
Sum		5	2	1	0	3	0

Table 7.11: Statistics of resulting in new routines.

A lower percentage of 60% (n=3) expressed positive perceptions regarding the usefulness of financial reporting, while only a percentage of 20% (n=1) suggested the usefulness of costing information. In contrast with the positive perceptions concerning the usefulness of the accounting information, as it is provided by the new system, only a percentage of 40% (n=2) of the interviewees supported the view of top management engagement in using the provided accounting information in decision making, while none of the interviewees asserted that budgeting from the Ministry of education and resource allocation is based on an accrual basis. All interviewees claimed that, even though the shift to an accrual accounting system implementation, the Ministry of education continued to adopt a cash basis rationale regarding the funding of HEIs, minimizing thus the usefulness of the new system and the promotion of new accounting routines in a daily basis.

According to the intra organizational dynamics activated and the extent they have impacted the development of new accounting routines, the above findings assert that they have not resulted totally to the development of the new accounting routines. Even though they have affected the perceptions of the involved staff regarding the usefulness of the accounting information provided by the new system, they did not influence equivalently the perceptions of top management in using accounting, costing and financial information resulting thus on new accounting routines, considering them as the positive outcome of the successful accounting change process.

Descriptive Statistics of new routines						
	N	Minimum	Maximum	Sum	Mean	Std. Deviation
New routines	5	,17	,67	1,83	,3667	,21731
Valid N (listwise)	5					

Table 7.12: Statistics regarding new routines.

Finally, the descriptive statistics in Table 7.12 support that new routines development within HEIs that have implemented the new accounting system succeeded at a rate of 37%. In the same line with the above findings, this rate implies, even more, that the intra organizational dynamics activated within HEIs that have implemented the accrual accounting system have not resulted totally to the development of the new accounting routines, considering them as the positive outcome of the successful accounting change process.

7.6 Summary

As it is mentioned, the aim of the current chapter was to present gathered complementary information through undertaking semi-structured interviews from the financial departments' Directors of HEIs. This information would be a valuable source that could contribute complementary to the findings derived from the previous stages of the current study in explaining in depth the phenomenon under investigation. For this reason, this chapter presented and analyzed the findings of data collected by ten interviewees, them being the Directors of financial department representatives of ten Greek HEIs. The analysis of section A of the semi structured questionnaire ensured that all interviewees had involved since the accounting change had initial been attempted by the P.D. 205/98. Also, it indicated that in total, five interviewees represented

respondent HEIs that have implemented the accrual accounting system and equally five interviewees represented respondent HEIs that have not implemented the new system. Three of the implemented HEIs the new system had adopted this before 2001 while two of them had adopted this post 2001.

Findings of section B of the interview's questionnaire, regarding to institutional pressures and the experience of any pressures regarding coercive, normative or mimetic forces pressing or enabling the adoption of the accrual accounting system have been, also, presented. Interviewees' statements, as well as, descriptive statistics findings of the coercive, normative and mimetic forces showed that a percentage of 30% of the interviewees perceived lightly coercive pressure due to the P.D. 205/98, without perceiving any further coercive pressure initially or later. A percentage of 20% of the interviewees expressed the view equally of normative or mimetic pressure, perceived as enabling the adoption of the MA change. Also, the key role of the intra organizational dynamics which have been activated in order to respond to these pressures has been discussed, reflecting each one of the three phases of the MA change, such as motivating/encoding, managing/enacting and reproducing/institutionalizing. According to the motivating/encoding dynamics, findings distinguished that the activation of the motivating and encoding dynamics within each individual HEI had influenced the perceptions of the need of change and the positive reaction of the involved employees, enhancing thus the adoption of the new accounting system. In turn, the activation of the managing and enacting dynamics has been presented, based on the interviewees' statements and the descriptive statistics findings. The analysis of top management's support and professional assistance and employees' training, reflecting

managing/enacting dynamics, indicated that a percentage of 60% of the interviewees seemed that expressed positive perceptions regarding the top management's supportive role to the attempted accounting change, while only a percentage of 30% agreed that training and professional assistance had been provided to the involved staff. In particular, only a percentage of 30% of the interviewees HEIs have expressed perceptions of activated the managing and enacting dynamics regarding both the top management's support, as well as, professional assistance and employees' training. Finally, interviews and descriptive statistics findings analysis confirmed the light existence of copying positive examples of similar or other organizations. They also indicated that the new accounting practices were not exclusively used, operating in parallel with the traditional accounting system practices. Even though new accounting system has introduced within five HEIs, only three of them provided evidence of the new accounting practices using in a daily basis. Consequently, the reproducing and institutionalizing dynamics was seemed to be not activated broadly, resulting to the limited institutionalization of the new accounting practices and the development of new routines within each individual HEI that has implemented the new accounting system. By the results of the above findings analysis the following research questions posted for the scope of this research have been answered:

- 1. To what extent did government exert pressures on the Greek HEIs to change their existing MA system, for example to implement the accrual accounting system?*
- 3. How did intra-organizational dynamics such as institutional dynamics and change dynamics influence the accrual accounting system implementation?*

Finally, the analysis of section C findings provided evidence of the extent in which the intra organizational dynamics have resulted in the development of new accounting routines in a daily basis. The interviewees were representatives of five HEIs that have implemented the accrual accounting system. They discussed the usefulness of the accounting, costing and financial information and reporting provided by the new system and the use of this information in decision making and future planning and budgeting. The analysis of their perceptions showed the accrual accounting information system' capacity to provide meaningful information on fixed assets, leading thus to accurate fixed asset management decisions, as well as, revenues and expenses recognition and receivables and payables available information whenever it was needed. With respect to the usefulness of accrual accounting information in decision making, it has been acknowledged that the new system provided accurate accounting information useful for account management purposes. However, the analysis of the interviews has revealed that the use of accounting and cost information by top management and of financial reporting by the Ministry of education to decision making and future planning, as well as, budgeting purposes has not been efficient and solid, despite the reports themselves being very informative. As a result, it was shown that there was no broad and extended use of the provided accounting, costing and financial information by the total HEIs' interviewees that implemented the accrual accounting system nor by the Ministry of education.

Consequently, by the above findings, it was suggested that the intra organizational dynamics, activated within each individual HEI that implemented the accrual accounting system, have not resulted in the full development of new accounting

routines, considering them as the positive outcome of the successful accounting change process. By the above findings analysis the following research question has been answered:

4. To what extent did intra organizational dynamics result in using new routines of accrual accounting system within Greek HEIs?

Following, the results from the analysis of the findings will be used in the following chapter (Chapter 8) in order to be integrated and harmonized with the results derived by the empirical findings of the content analysis and the survey structured questionnaire, which have been analyzed in the previous chapters.

SECTION C

(Confirmation and comprehension of the results)

CHAPTER 8

Integrating results: Confirmation and comprehension of findings

8.0 Introduction

The current study focuses on providing an answer to the question of how HEIs in Greece responded to governmental pressures for accounting reform during the decade of 1998-2008; specifically, it focuses on the extent to which HEIs implement the accrual accounting system and the influence of the isomorphic and intra organizational dynamics on its implementation. The aim of this enquiry is to assist in providing a deep understanding of the external and internal dynamics that influence the adoption and implementation of the MA systems, resulting thus, to new daily accounting practices within certain organizations. The current study is not limited in researching the various ways in which the Greek HEIs cope with the management of the change pressures but also aims towards studying the effect of the internal and external institutional environment within which organizations operate. This institutional environment exerts influence on the behavior of the organizations with regard to change. Finally, the overall research problem of this study formulated as follows:

Did Greek HEIs adopt the accrual accounting system during the decade 1998-2008 and how did the isomorphic and intra-organisational dynamics influence it?

Related to the research problem five sub research questions have been posted:

- 1. To what extent did government exert pressures on the Greek HEIs to change their existing MA system, for example to implement the accrual accounting system?*
- 2. To what extent did Greek HEIs respond to the isomorphic pressures to change their existing MA system, for example to implement the accrual accounting system?*
- 3. How did intra-organizational dynamics such as institutional dynamics and change dynamics influence the accrual accounting system implementation?*
- 4. To what extent did intra organizational dynamics result in using new routines of accrual accounting system within Greek HEIs?*
- 5. How the empirical findings provided by the extensive investigation of the research problem in the Greek higher education sector support the theoretical considerations implied by the employed theoretical framework in this study?*

In this vein, a comprehensive and solid multi-approached theoretical framework is developed for gaining a deep understanding and explanation of the process of change and the key role of the institutional and intra organizational dynamics to be determined. This particular framework employs various institutional theory strands and perspectives on change management theories, regarding change management processes that consider the ways in which MA practices can undergo change. It is based on multi theoretical approaches in order to explore key elements of change and management change process that underpin the entire reform and the success or failure of change efforts. Given the complexity of change this framework is expected to mainly contribute to a thorough exploration and explanation of fundamental change management issues that should be

concerned by actors who initiate or implement changes within specific organizational settings such a higher education sector.

The complexity of the phenomena under investigation implied the need for a sequential mixed method approach in order to best understand and explain the phenomenon under investigation. It is claimed that:

“Appropriately used, triangulation might enhance the completeness and confirmation of data in research findings of qualitative research. The use of both quantitative and qualitative strategies in the same study is a viable option to obtain complementary findings and to strengthen research results.” (Thurmond, 2001, p. 257)

The current study has adopted a mixed method research approach aiming to the corroboration/confirmation and comprehension of the research findings. The data collection design based on the use of a combination of quantitative and qualitative methods complemented each other, allowing thus for a more complete analysis and better understanding of the research problem. In particular, this study has adopted a sequential mixed method design, collecting quantitative and qualitative data separately at three distinct phases during the period of 2008-2009 (Figure 8.1). As it was analytically discussed in chapter 4, each empirical study, as well as, document analysis was designed in such a way in order to complete and confirm/corroborate the results with the others.

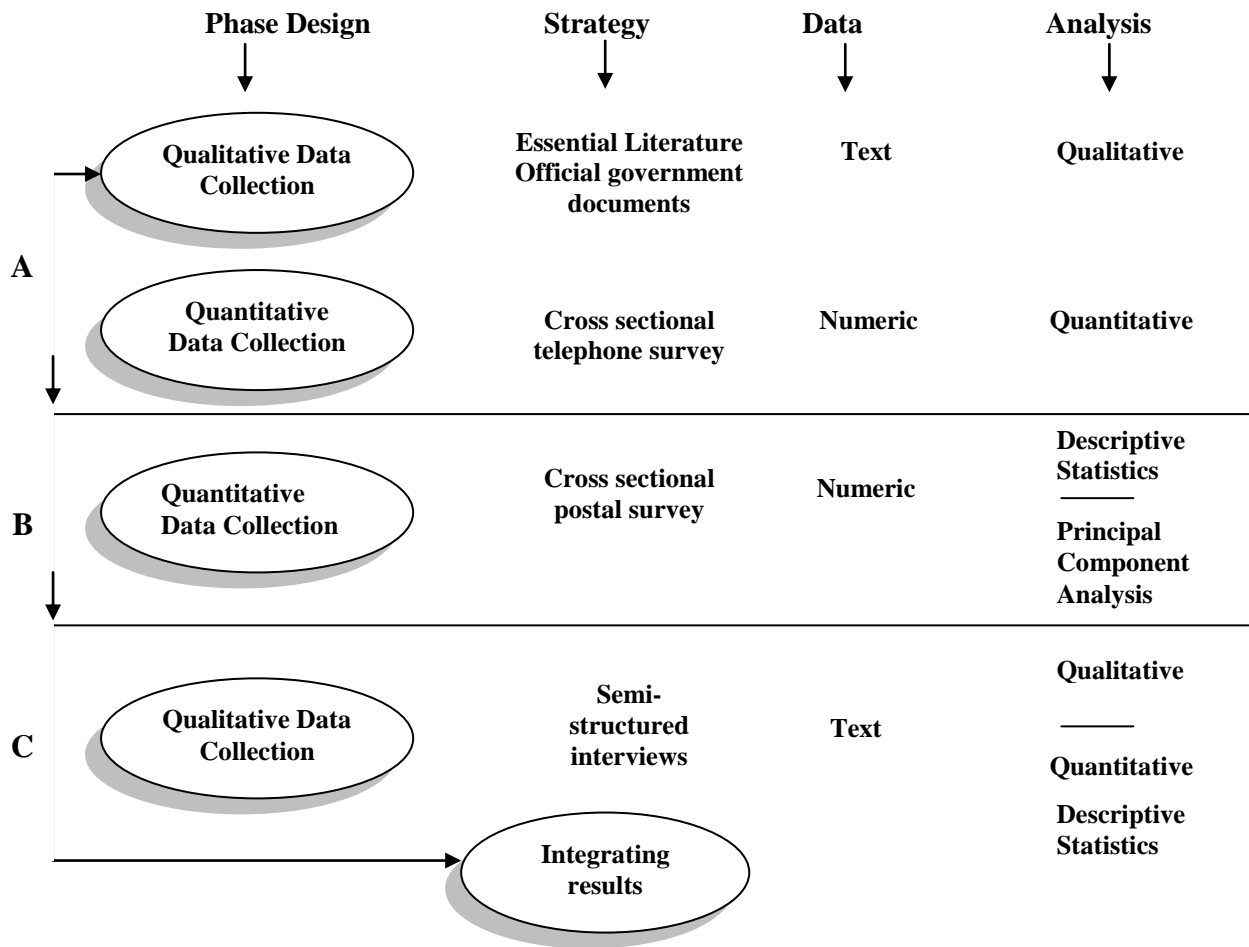


Figure 8.1: Sequential Mixed Method Research Design (Author's own).

During the research stages the research questions have been answered respectively to the research findings aiming to the overall research problem comprehension. Actually, this will be gained with the integration and harmonization of the overall findings providing a comprehensive and deeper understanding of the overarching research problem and the phenomenon under investigation, such as the MA change that unfolded within the Greek HEIs during the decade 1998-2008.

In the current chapter, the integration phase, as the most important step in any mixed method study (Teddlie & Tashakkori, 2009) will be developed extensively, mixing and

connecting the research findings of each research stage. In particular, the principal aim of this chapter is to bring together the empirical findings, to complete and confirm/corroborate the analysis results and answer each of the research questions by using an integrating and harmonizing approach. Each of the first four research questions will be answered separately by combining the findings of each empirical phase related. Quantitative and qualitative results will be confirmed and differences between different target groups or sources will be determined and explained. Following, the final research question regarding the reflection of the theoretical framework articulated in this study by the empirical evidence will be discussed. It will be attempted to put together the theoretical framework developed for the scope of this study and the research interpretations that have been laid out so far, in order the final research question to be answered. Finally, this chapter will conclude with an overall discussion of the research problem and the phenomenon under investigation and further implications.

8.1 Isomorphic pressures: A three study analysis

In this section the first research question concerning the extent in which governmental pressures have enforced isomorphic forces such as coercive, formative and mimetic in order the Greek HEIs to implement the accrual accounting system will be totally answered. Answering the question will be based on the findings provided by collecting and analyzing data with regard to the mixed methods approach adopted. Specifically, the first research question explored with respect to the research design choices during the three sequential phases of the current enquiry as it is shown in the table 8.1: An

essential literature review and official document study, and an empirical study during the phase A and two empirical studies during the sequential phases B and C.

Research question	Strategy	Document analysis	Survey 1	Survey 2	Interviews	Integration
<i>To what extent did government exert pressures on the Greek HEIs to change their existing MA system, for example to implement the accrual accounting system?</i>		X	X	X	X	X

Table 8.1: Research design choices respectively to the first research question (Author's own).

First, a close study of the literature and official government documents specifically related to the accounting reform of higher education in Greece was unfolded during the phase A (Chapter 5). Literature and official documents qualitative analysis provided evidence that the accounting reform in Greek public sector, including the higher education sector, in accordance to the legislation (P.D. 205/98) demanded the application of the accrual accounting system. The rationale was based on a sectoral accounting plan focusing on the maintenance and issuance of proper documentation regarding financial, cost and budget accounting. Isomorphic pressures, such as coercive, normative and mimetic exerted by the government through the law were investigated and analysed separately, providing thus findings primarily. Specifically, the coercive force did not seem to play a key role in the adoption of the accrual basis accounting system by the HEIs. The only formal but slight coercive pressure was the law (P.D. 205/98) which reformed the financial accounting system for HEIs from a cash basis accounting system into an accrual basis accounting system. In accordance with all the arguments mentioned, there was no pressure from the state for enacting the MA change and for adopting the accrual accounting system on HEIs. Consequently, it

was reflected the absence of an explicit coercive force that would enact the progression towards the accounting reform and the enforcement of the accrual accounting basis system in HEIs, with exception the one formal slightly exerted by the law itself. The normative pressure might also alike coercive pressure be encouraged, or not, by the government. However, the extensively discussed statements through the essential literature review and the official documents related showed that none normative pressure was perceived by the HEIs. The government encouraged by the law (P.D. 502/1998) the adoption of the accrual accounting system without ensuring the enforcement of the normative force, which is based on the assumption of seeking conformity and shared understanding of what is proper for an organization. Finally, the existing literature has not provided any sign of the mimetic force enacting the HEIs towards the implementation of the accrual basis accounting system. In particular, neither the legal framework by own nor the initial implementation of the new system by the pilot universities could enforce the mimetic force, as no shared knowledge of the benefit and the appropriateness of the new system was approved.

In turn, the above findings have been also supported by the quantitative analysis of the data collected by a telephone survey asking for the implementation of the accrual accounting system in HEIs. During the survey the Directors of financial departments were asked to answer whether and when their institution has put in action the use of the accrual accounting system, in terms of accrual financial accounting and cost accounting full implementation. From the survey has concluded that, out of a total of 38 HEIs, only eleven HEIs (29%) have adopted the implementation of the accrual accounting system; seven of them are universities (32%) while four of them are TEIs (25%). It is clearly

shown that only a small percentage (29%) of HEIs have completely used and fully implemented the accrual accounting system even though it has now been ten years since the law has been valued. The remainders have not so far implemented the accrual basis accounting system or they have instead adopted a partial implementation of this system. The above findings indicated the slight coercive forces that were exerted by the Greek government and have influenced the implementation of the new system as only 29% of the HEIs responded to the attempted accounting reform. Furthermore, the achievement of a higher percentage (16%) for HEIs that implemented the new system until 2001 as compared to those (13%) that implemented the new system after 2001 showed no or slight signs of normative forces influencing the implementation of the new system. It would be expected that the existence of normative pressures should result in the increase of the percentage of the later adopters of the new system. However, there is no evidence of such findings. According to the mimetic forces, they might be associated with one of the HEIs' categories namely the size. All the HEIs that implemented the new system have fallen into the category of "large" and this may imply the enacting mimetic mechanism related to the adoption of the MA change. Summarizing, it was assumed that isomorphic forces have been insufficiently activated by the external environment in order to push the Greek HEIs forward towards the adoption of the accounting reform demanded by the legislator (P.D. 205/1998). The only isomorphic pressure that initiated MA change was the formal coercive force that slightly exerted by the law itself. There is also a sign of mimetic force and it is may associated with the category of the "large" HEIs.

Following, the investigation of the first research question was further continued by a postal survey structured questionnaire and its quantitative analysis during the sequential phase B of the study (Chapter 6). In particular, the last question (A6) of the section A of the questionnaire concerned the isomorphic forces assisting for the adoption of the new system. The question constituted by four statements referred to coercive, normative and mimetic forces. They isomorphic forces were reflected by the governmental pressures exerted, the leader commitment and professional support provided, and the positive examples mimicking. The survey was administered in June 2008 to the financial departments' Directors across the thirty-eight HEIs in order to be shared to the Heads of the financial department and it was completed finally in the end of 2008. In total, thirty eight Heads of the financial departments, twenty-two of universities and sixteen of TEIs, corresponding thus one questionnaire for each individual HEI, were asked to complete the survey structured questionnaire. Eventually, out of thirty eight distributed structured questionnaires, sixteen questionnaires were completed and returned representing sixteen HEIs and yielding a response rate of 42% of the Greek HEIs included to the survey. In particular, ten universities (45%) of the total number of twenty-two universities and six TEIs (38%) of the total number of sixteen TEIs answered the questionnaire. Descriptive statistics were used presenting and analyzing the set of the statements, as well as, each one statement separately mentioned by the respondents. The analysis showed that all means values were very low expressing the perception that none of the isomorphic forces, such as coercive, normative and mimetic have assist towards the MA change. In particular, the descriptive frequency analysis of each of the statements showed that 68,8% of HEIs explained that governmental pressure did not assist, leaders and top management commitment did not or hardly

assist and professional support did not assist the implementation of the new system. In contrast, a response rate of 25% of HEIs explained that government pressure assisted rather or markedly, while a percentage of 31,3% explained the leaders and top management commitment, as well as, professional support assisted markedly the new system adoption. These findings are not surprising given the fact that five HEIs (31%) from the sixteen total respondents HEIs have full implemented the accrual accounting system. According to a further two-group analysis this view has been supported in that the respondent TEIs that have implemented the accrual accounting system have experienced in a high level both coercive and normative pressures. Contradictory, in the case of HEIs that have not implemented the new system coercive and normative forces did not have been experienced with the mean rate remaining in the lowest level of 1,00 or 1,27. Finally, the mimetic force reflected by the positive HEIs examples, seemed that did not assist toward the adoption of the new system, independently of the implementation or not of the new system.

In the last phase C of the study the first research question was further investigated through interviewing ten Directors of financial departments of the sixteen respondents HEIs participating in the survey phase, representing seven universities and three TEIs (Chapter 7). In total, five interviewees represented respondent HEIs that have implemented the accrual accounting system and equally five interviewees represented respondent HEIs that have not implemented the new system. Out of five HEIs that have implemented the new system, three of them have adopted the new system before 2001, while two of them have adopted the new system post 2001. Data was collected during the face-to-face interviews by completing the semi structured interview schedule. The

interviews took place during a period of six months, from January to June of 2009, into two sub-periods. The first sub-period unfolded from January to the end of April with representatives from ten HEIs participated at this stage. In turn, the interviews continued extensively with five of the participating HEIs during May to June aiming to further gathering information. The analysis of the statements of the interviewees seemed to imply that, due to slightly coercive pressures derived by the law, some of the Greek HEIs adopted the MA change since the activation of the P.D. 205/98. The later adoption of the MA change seemed not being enforced by the law but has been rather driven by normative and mimetic forces derived by the implementation of the new accounting system by other HEIs. Mimetic forces did not seem to have enforced initially the adoption of the MA change. Only one of the interviewees suggested normative pressure. Furthermore, the analysis of descriptive statistics supported the findings derived by interviewees' answers. Means and sums of the coercive, normative and mimetic forces showed that a percentage of 30% of the interviewees perceived slightly coercive pressure due to the P.D. 205/98, without perceiving any further coercive pressure initially or later. A percentage of 20% of the interviewees expressed the view equally of normative or mimetic pressure perceived as enabling the adoption of the MA change. The findings finally derived from all studies conducted during the three sequential stages of the enquiry are clearly presented in the following table 8.2. The integration of findings will formulate a comprehensive and circumstantial picture of the isomorphic forces that has/or not been activated in order the attempted MA change to be adopted and the new accounting system to be implemented within the Greek HEIs.

Phase	Analysis	Coercive	Normative	Mimetic
Phase A	Document Analysis	Slight	None	None
	Survey 1	29%	None or signs	Signs in “large” HEIs
Phase B	Survey 2	25%	31,3%	None
Phase C	Interviews (Qualitatively)	Slight	Signs	Signs
	Interviews (Quantitatively)	30%	20%	20%

Table 8.2: Isomorphic forces findings with regard to phase study and data analysis (Author’s own).

According to the coercive force all findings indicate a slight coercive force that exerted from the law (P.D. 205/98). In particular, document and interviews qualitative analysis demonstrated a slight coercive force driven by legislation and enforcing the adoption of the MA change. This view has been further supported by the surveys and interviews quantitative analysis which provided evidence of low coercive force rates that fluctuate from 25% to 30%. The range of these rates is further explained due to the variety of the samples participated in each of the three phases of the enquiry. For example, in phase A the sample is the total number of HEIs and the percentage of 29% concerns the total HEIs implemented the new system, with a rate of 16% starting before 2001, while a rate of 13% starting post 2001. This implies that initially (before 2001) the slight coercive force derived by the law impacted on a very low percentage (16%) of HEIs. A lower percentage (13%) of HEIs than the former decided to adopt the new system post 2001. This is possibly due to the continuously coercive force slightly derived by the law or by signs of normative force revealed. In phase B the sample is 42% of the total number of HEIs with a rate of 31% of the respondents having implemented the accrual

accounting system. These rates explain the percentage of 25% that presents the coercive force while it remains lower than the rate of 31% of the respondents HEIs that have implemented the new system. Also, this implies a slight coercive force. Finally, the findings analysed quantitatively in phase C underpin the previous discussion. Based on a sample of ten representatives HEIs, with the five of them having implemented the new system (50%), the quantitative analysis indicated a rate of 30% to support the impact of a coercive force. Given the fact that, a percentage of 60% have implemented the accrual accounting before 2001, the percentage of the coercive force is shown to be very low, implying alike with the previous analysis the existence of a light coercive force that has enabled the adoption of the MA change. According to the normative force, both qualitatively and quantitatively analyzed the findings demonstrate the existence of a slight normative force. Based on the previous rationale the rates of normative force support the qualitative analysis, remaining very low and indicating that the normative force has slightly enabled the adoption of the MA change. In the same vein, the mimetic force is shown to have impacted alike or even more slightly towards the implementation of the accrual accounting system, implying thus its relation with the normative force as both seem to arise alike. Integrating thus all the derived findings it is assumed that isomorphic forces, such as coercive, normative and mimetic forces have been slightly activated by the external environment in order to push the Greek HEIs forwards the adoption of the accounting reform demanded. The Greek HEIs have implemented the new accounting system rather due to the light coercive force that exerted formally by the law and less due to both normative and mimetic forces derived later by the implementation of the accrual accounting system within a small number of HEIs (16%). From the above discussion and integration of all qualitatively and

quantitatively analyzed findings a comprehensive explanation and understanding of the isomorphic forces has been confirmed/corroborated answering thus the first research question.

8. 2 Responding to isomorphic pressures

Answering the second research question will be based on the findings provided by collecting and analyzing data during the phase A of the current study. Specifically, the second research question explored with respect to the research design choices as they are shown in the following table 8.3.

Research question \ Strategy	Document analysis	Survey 1	Survey 2	Interviews	Integration
<i>To what extent did Greek HEIs respond to the isomorphic pressures to change their existing MA system, for example to implement the accrual accounting system?</i>	X	X			X

Table 8.3: Research design choices respectively to the second research question (Author's own).

Literature and official documents qualitative analysis provided evidence that the accounting reform in Greek public sector (Chapter 5), even ten years later after the initial attempt that was introduced by the law (P.D. 205/1998), characterized as unsuccessful and the extension of the implementation of the accrual basis accounting system in the Greek HEIs remained inefficient. According to Venieris and Cohen (2004, p. 201) “The effort of just transplanting a system already developed under other circumstances did not succeed in the case of Greek Universities”. Tolbert and Zucker (1983, p. 27) also claimed that “legal requirements do not always ensure adoption” implying that sometimes the legislator does not guide towards the adoption of the

required by itself. That is what has happened in the case of the Greece. It has become obvious that even though the law (P.D. 205/1998) was valued by the Greek government, it did not promote the efficient adoption of the legal requirement within the HEIs, such as the accrual accounting system.

The above implications were also supported by the extended analysis of the survey findings concerning the current situation and the extent of the implementation of the accrual basis accounting system by the Greek HEIs. According to these findings, since the law (P.D. 205/1998) was passed only 29% of the HEIs implemented the new system and they have fallen into the categories of “old”, “urban” and “large”. The 32% of them are universities mainly new, peripheral and large while the 25% of them are TEIs mainly old, urban and large. In particular, only the 16% of the HEIs have implemented the new accounting system before the expansion of the determined by the law deadline in 2001, while the 13% have implemented the new system from 2001 onwards. A 14% of them were universities while the 19% of them were TEIs. Assuming, the integration of both qualitative and quantitative analysis confirmed/corroborated the findings regarding the extension in which the Greek HEIs have responded to the isomorphic pressures for the adoption of the MA change and the implementation of the new accounting system, answering thus the second research question.

8.3 Analyzing the intra organizational dynamics

Answering the third research question will be based on the findings provided by collecting and analyzing data during both phases B and C of the current study.

Specifically, the second research question explored with respect to the research design choices as they are shown in the following table 8.4.

Research question	Strategy	Document analysis	Survey 1	Survey 2	Interviews	Integration
<i>How did intra-organizational dynamics such as institutional dynamics and change dynamics influence the accrual accounting system implementation?</i>				X	X	X

Table 8.4: Research design choices respectively to the third research question (Author's own).

The findings of data collected during the postal survey structured questionnaire during the sequential phase B of the study and the quantitative analysis of the attitudes of middle management in thirty eight public Greek HEIs on the attempted MA change during the decade 1998-2008 (Chapter 6). As it is already indicated out of thirty eight distributed structured questionnaires, sixteen questionnaires were completed and returned representing sixteen HEIs and yielding a response rate of 42% of the Greek HEIs included to the survey considered as being an efficient response rate. According to the findings of section B of the structured questionnaire the means rate has been approved to be reduced following the starting Encoding/Motivating phase towards the ending Reproducing/Institutionalizing phase. This tension implies reasonably that even though the MA change has been attempted initially and the first phase of the MA change has been experienced by a number of HEIs, in turn, it may not be implemented finally at all or it may be implemented partially. In these cases, having no fully adopted all the change process, step by step, respectively to the theoretical frame supported by the current study, the progress of the change process has been fallen down partially or totally. The findings analysis, confirmed, at the same time, by the principal component

analysis, implies that the three phases of accounting change have been strongly correlated, influencing to each other consecutively. In this way, the intra organizational dynamics that have been activated in each HEI seemed to affect the attempted MA change, driving thus the whole process from the starting point to the end of the MA change process.

In order to further explain the decreasing tension of mean rates the respondent sample has been divided into groups. The first group (GROUP “YES”) constituted by five respondents that have implemented the accrual accounting system while the second group (GROUP “NO”) included eleven respondents that have not implemented the accrual accounting system (n=11). It is remarkable that even in the case of GROUP “YES” the mean rates present the similar decreasing tension with the minimum rate remaining beyond 3,8 in the third phase. This implies that although in the first phase, the adoption of the MA change has successfully motivated the evolved staff and the new rules had been encoded towards fully implementing, however, in the consecutive phases the process seemed that had not been drawn upon the required change management steps in a similar way. In the second phase of managing people the mean rate (M=4,25) implies an efficient level of the involved staff agreement but, at the same time, the decreasing tension of mean rate it may be translated as emerged problems and difficulties during the managing process reducing thus the level of the agreement concerning the enacting of the involved staff. This view is also supported by the mean rate of the last phase of reproducing the new accounting practices and institutionalizing them as being taken for granted (routines). Problems and difficulties faced in the second phase seems to affect in some way the last phase reducing even more the level

of the agreement concerning the institutionalization of the new practices, although it remains beyond the rate of 4 still expressing an efficient level of agreement. According to the second GROUP “NO” it is obvious the disagreement of the involved staff during all phases of the accounting change. The GROUP “NO” obviously expresses these cases in which the intra organizational dynamics have been slightly activated towards the adoption and implementation of the new system, having thus no sufficiently motivating the involved staff and encoding the new rules, no effectively managing the accounting change and enacting the involved staff and consequently no reproducing the new practices and institutionalizing them as being taken for granted. In this way, the intra organizational dynamics that have been activated in each HEI seemed to affect the attempted MA change as they interact to each other, driving thus the whole MA change process from the start point until the end.

However, in the last phase C of the study the above research question was further investigated and the survey findings confirmed/corroborated through interviewing ten Directors of financial departments of the sixteen respondents HEIs participating in the survey phase, representing seven universities and three TEIs (Chapter 7). As already has been mentioned, in total, five interviewees represented the respondent HEIs that have implemented the accrual accounting system and equally five interviewees represented the respondent HEIs that have not implemented the new system. Out of five HEIs that have implemented the new system, three of them have adopted the new system before 2001, while two of them have adopted the new system post 2001. Especially, regarding the intra organizational forces, six questions were used in section B of the semi-structured interview questionnaire aiming to detect the existence of

particular forces activated within the organization towards the implementation of the new system. Furthermore, the key role of the intra organizational dynamics which have been activated has been discussed reflecting each one of the three phases of the MA change such as motivating/encoding, managing/enacting and reproducing/institutionalizing.

Qualitatively and quantitatively analyzed the perceptions of the interviewees the findings have distinguished that the activation of the motivating and encoding dynamics within each individual HEI had influenced the perceptions of the need for change and the positive reaction of the employees involved, enhancing thus, the adoption of the new accounting system. These findings mainly concerned perceptions of interviewees who represented the HEIs that have implemented the new accounting system (60%). In turn, the analysis of top management's support and professional assistance and the employees' training, reflecting on managing/enacting dynamics, has indicated that the same percentage (60%) of interviewees expressed positive perceptions regarding top management's supportive role to the attempted MA change. However, only a percentage of 30% agreed that training and professional assistance had been provided to the staff involved. Finally, findings have confirmed the slight existence of copying positive examples from similar or other organizations (20%). They have also indicated that the new accounting practices were not exclusively used in, operating in parallel with the traditional accounting system practices. Even though the new accounting system has been introduced within five HEIs, only three of them (60%) provided evidence of the new accounting practices applied on a daily basis. Consequently, the reproducing and institutionalizing dynamics appeared not to have been broadly

activated but rather slightly, resulting to the limited institutionalization of the new accounting practices and to the development of new routines within each individual HEI that adopted the new accounting system. Consequently, the integration both interviews and survey findings confirmed/corroborated that the intra organizational dynamics have influenced the implementation of the new system decreasingly enacting and enabling the whole MA change through the three phases of the change process, answering thus the third research question.

8.4 Resulting in new routines

Answering the fourth research question will be also based on the findings provided by collecting and analyzing data during both phases B and C of the current study. Specifically, the fourth research question explored with respect to the research design choices as they are shown in the following table 8.5.

Research question \ Strategy	Document analysis	Survey 1	Survey 2	Interviews	Integration
<i>To what extent did intra organizational dynamics result in using new routines of accrual accounting system within Greek HEIs?</i>			X	X	X

Table 8.5: Research design choices respectively to the fourth research question (Author's own).

The analysis of section C of the structured questionnaire survey findings provided evidence of the extent of the accrual accounting daily practices investigating thus the implications of the intra organizational dynamics in each individual HEI according to the institutionalization of the new practices and the new routines. In total, a percentage of 66% of the respondents HEIs that have implemented the new accounting seemed to apply accounting practices based on the accrual principles into their daily accounting

activities. The structured questionnaire survey concerned accrual accounting practices with regard to the recognition, measurement, cost depreciation and maintenance of fixed assets, the recognition and record of stocks, the recognition of revenues, expenses, receivables and payables, as well as, cash and cash equivalents, the preparation of financial reporting and finally the application of activities regarding costing. Given the fact that only a rate of 31% of the respondents HEIs has implemented the accrual accounting, a more detailed discussion of the findings, separately for each statement, as well as, for HEIs that have implemented the accrual accounting system was indicated, in order to clearly associate and analyze the derived rates. In summary, the separately analysis of the findings in respect to each statement discussed mainly that, the HEIs that have implemented the accrual accounting have adopted the accrual accounting principles in their daily accounting activities, but not exclusively and totally. Specifically, descriptive statistics presented in total the use of the accrual accounting and the new routines that have been actually experienced on a daily basis. It is evident that although all the HEIs in the 'YES' group have implemented the accrual accounting system, only a part of them (66%) have actually used the accrual principles on their daily accounting practices.

Finally, the analysis of the findings in section C of the semi structured interview questionnaire provided a broader explanation of the extent in which the intra organizational dynamics have resulted in the development of new accounting routines on a daily basis and a better understanding of the phenomenon under investigation. In particular, the interviewees were representatives of five HEIs that have implemented the accrual basis accounting system. They discussed the usefulness of the accounting,

costing and financial information, the reporting provided by the new system and the use of this information in decision making and future planning and budgeting. The analysis of the employees' involved perceptions showed the completeness of the accrual accounting information system in providing complete fixed asset information leading thus, to accurate fixed asset management decisions, as well as, revenues and expenses recognition and information available on receivables and payables, whenever it was needed. In relation to the usefulness of accrual accounting information in decision making it has been acknowledged that the new system provided accurate accounting information useful for account management. However, it appeared from the analysis of interviews that the use of accounting and cost information by top management, and of financial reporting by the Ministry of education to decision making and future planning, as well as, for budgeting purposes has been very fragile, although the reports themselves have been informative. As a result, it has been demonstrated that there was neither broadly and extended use of the provided accounting, costing and financial information by the entirety of the HEIs that implemented the accrual accounting system nor by the Ministry of education. The qualitatively analyzed findings were also supported by the descriptive statistics of quantitative analysis in which the means and sums demonstrate that in total the interviewees supported the usefulness of the accounting information provided (100%). A lower percentage of 60% (n=3) expressed positive perceptions regarding the usefulness of financial reporting while only a percentage of 20% (n=1) suggested the usefulness of costing information. Contrary to the positive perceptions regarding the usefulness of the accounting information provided by the new system, only a percentage of 40% (n=2) of the interviewees supported the view of top management engagement in using the provided accounting

information in decision making. At the same time, none of the interviewees asserted that budgeting from the Ministry of education and resource allocation is based on an accrual basis. All interviewees claimed that even though the shift to an accrual basis accounting system implementation, the Ministry of Education continued to adopt a cash basis rationale regarding the funding of HEIs, minimizing thus the usefulness of the new system and the promotion of new accounting routines on a daily basis. Finally, descriptive statistics analysis supported that new routines development within HEIs that have implemented the new accounting system succeeded at a rate of 37%. In the same line with the above findings, this rate implies, even more, that the intra organizational dynamics activated within HEIs that have implemented the accrual accounting system have not resulted totally to the development of the new accounting routines, considering them as the positive outcome of a successful accounting change process.

Comparing the above findings derived from the survey and interviews data analysis, it is noticeable that the rates regarding the use of the new accounting practices on a daily basis are significantly different. Indeed, according to the survey's findings a rate of 66% of the HEIs that implemented the new accounting system seems that have actually used accrual practices on a daily basis. However, interviews' findings support that only a rate of 37% of the HEIs that implemented the new accounting system have developed new accounting routines based on an accrual accounting basis. Given that in depth interviews are used in order to better explain and understanding of the research phenomenon, the differentiation of the rates implies that even though accrual accounting practices have been used, as it is indicated by the survey findings, however, they have not actually resulted in the development of new routines within HEIs,

considering them as the positive outcome of a successful accounting change process. Consequently, from the above findings, it has been suggested that the intra organizational dynamics, activated within each individual HEI that implemented the accrual accounting system, have not resulted to the total development of new accounting routines contradicting thus strongly the quantitative survey results regarding the new accounting practices implementation in a daily basis and answering the fourth research question of the stud.

8.5 Reflecting the theoretical framework

According to the research design choices, as they are shown in the following table 8.6, this section intends to address the fifth and final research question, which concerns whether the empirical evidence coincide with the theoretical framework employed for the scope of this study.

Research question	Strategy	Document analysis	Survey 1	Survey 2	Interviews	Integration
<i>How the empirical findings provided by the extensive investigation of the research problem in the Greek higher education sector support the theoretical considerations implied by the employed theoretical framework in this study?</i>						X

Table 8.6: Research design choices respectively to the fifth research question (Author's own).

In particular, the theoretical framework presented analytically in Chapter 3 strongly supported that the intra organizational dynamics should be activated within each individual HEI under the external institutional pressures and the revealed isomorphic pressures such as coercive, normative and mimetic. The rationale based on was the

combination of institutional theory's strands such as NIS and OIE with change management theories providing thus a comprehensive multi level theoretical approach. The empirical evidence provided by the extensive investigation of the research problem in the Greek higher education sector seemed to support the theoretical considerations implied by the employed theoretical framework. In particular, findings revealed by essential literature and official document thorough analysis, as well as, qualitative and quantitative analysis of data collected by surveying and interviewing have been integrated and harmonized on the theoretical basis addressed in this study. Isomorphic forces have been explored and analyzed in respect to the NIS considerations, while intra organizational dynamics enacted within each HEI have been investigated and interpreted on an OIE and management theories basis approach. The multi level theoretical approach adopted in this study provided a macro- and micro- level analysis of the phenomenon under investigation and the interpretation of the key role of the institutional and intra organizational dynamics, which have impacted the adoption of the MA change within the Greek HEIs. Even though both the size of the research sample used and data collected were not the appropriate in order to allow a sufficient statistical analysis, the descriptive statistics findings, as well as, principal component analysis indicated distinctly the strong correlation of the intra organizational dynamics. These findings underpinned thus the theoretical considerations related to this study regarding the micro- level analysis of the phenomenon under investigation. According to the isomorphic pressures both qualitative and descriptive statistics analysis, also, sustained the co-existence and interaction of the related coercive, normative and mimetic forces, as well as, their influence on the MA change adoption. These findings sustained thus the theoretical framework based on this study regarding the macro- level

analysis of the research problem. Finally, the integration and harmonization of the overall findings in the current chapter demonstrated that, although difficult, it is possible to isolate the variety of isomorphic and intra organizational dynamics respectively to a theoretical basis in practice, considering the real conditions existed in both macro- and micro- levels. This is what happened in the current investigation of the attempted MA change within the Greek HEIs.

8.6 Closing remarks

Finally, this chapter will provide a comprehensive concluding discussion based on the harmonization of the above integrated and confirmed/corroborated results. Also, implications on the future avenues of accounting reform research in Greek higher education and the future challenges faced by the Greek HEIs will be addressed. The starting point of this study was based on the assumption of the migration from cash-basis accounting to accrual-basis accounting, as the result of demands for greater accountability and transparency in the public sector (Dickinson, 2000). Based on the dominant view that public sector entities are responsible for providing a wide range of goods and services, the public sector accounting has been considered as a key part of this process maximising public sector efficiency and securing the public sector management at the minimal cost lever to society. Indeed, accountability has been considered as essential to secure efficiency and effectiveness. Lack of accountability implied that public sector cannot pursue its objectives, cannot use available resources efficiently and therefore cannot be effective. According to the traditional view for public sector management cash accounting and financial statements based on a budget outcome report was broadly considered to be appropriate for the public sector, since

emphasis was placed on compliance with rules and regulations. Under the NPM currently dominant view and with public sector efficiency and accountability emphasized the private sector style financial statements under the accrual concept are recommended for introduction (Wynne, 2003). All these considerations have been the main concern for the public organizations funded by the government such as higher education sector organizations.

In this vein, the current study focused on providing an answer to the question of how HEIs in Greece responded to governmental pressures for accounting reform during the decade of 1998-2008; specifically, it focused on the extent to which HEIs implement the accrual accounting system and the influence of the isomorphic and intra organizational dynamics on its implementation. The aim of this enquiry was to assist in providing a deep understanding of the external and internal dynamics that influence the adoption and implementation of the management accounting (MA) systems, resulting thus, to new daily accounting practices within certain organizations. The current study was not limited in researching the various ways in which the Greek HEIs cope with the management of the change pressures but also aimed towards studying the effect of the internal and external institutional environment within which organizations operate. This institutional environment exerts influence on the behavior of the organizations with regard to change. Consequently, this thesis has provided evidence of how the intra organizational dynamics have been activated towards the implementation of the new accounting system under the government pressure and the isomorphic forces enacted for. Furthermore, this thesis resulted in that the implementation of the accrual accounting system and the attempted MA change were dependent on the activation and

interaction of the isomorphic forces, as well as, of the intra organizational dynamics which guided the whole process of change from the starting point to its resulting thus to the new daily accounting practices and routines up rising as taken for granted.

Answering one by one the research questions posted in order the overall research problem to be in depth investigated this study resulted in the following inferences that reflect the MA change in the particular case of the Greek HEIs. Ten years later after the initial attempt of the accounting reform that was introduced by the law (P.D. 205/1998), the extension of the implementation of the accrual basis accounting system in the Greek HEIs remained inefficient reflecting thus the unsuccessful attempt made by the Greek government. According to Lapsley and Wright (2004), the adoption of accounting innovations from public organizations is highly influenced by the governmental policy. Furthermore, Tolbert and Zucker (1983) claimed that the adoption of legal requirements is not always ensured by its own. This means that in case of the accounting reform into the Greek HEIs, even though the adoption of the law might happen, it could not ensure the actual and full implementation of the accrual accounting within each individual HEI. Indeed, it has become obvious that even though the law (P.D. 205/1998) was valued by the Greek governmental policy, specifically the ministry of the education's policy, it did not promote the efficient adoption of the legal requirement in the HEIs, such as the accrual basis accounting system. From all the derived findings was assumed that isomorphic forces such as coercive, normative and mimetic forces have been slightly activated by the external environment in order to push the Greek HEIs forwards the adoption of the accounting reform demanded. The Greek HEIs have implemented the new accounting system rather due to the light

coercive force that exerted formally by the law and less due to both normative and mimetic forces, derived later by the implementation of the accrual accounting system within a small number of HEIs. In particular, it was obvious that neither the legal framework by own nor the initial implementation of the new system by the pilot universities could enforce strongly the normative or mimetic force, as no shared knowledge of the benefit and the appropriateness of the new system was approved.

Furthermore, this study concluded that particular intra organizational elements influence the implementation effort and success within organizations, especially in the higher educational sector. Public HEIs are complex social and activity systems, characterised as bureaucratic organizations which operate within a dynamic environment. As a consequence, it is more difficult to enforce a decision (Venieris & Cohen, 2004). In the case of the Greek HEIs, the intra organizational dynamics defined as institutional and change dynamics, have not been activated sufficiently in order to actually adopt the legal requirements and to fully implement the accrual accounting system on a daily basis. Even though in the cases in which the individual HEIs have adopted the accrual accounting system, the intra organizational dynamics enforced through the motivating/encoding, managing/enacting and reproducing/institutionalizing phases of the MA change process, have not resulted to the total development of new accounting routines, considering them as the positive outcome of the successful MA change process. The interaction of the intra organizational dynamics has also been approved and their strong correlation that has impacted the overall change process has been indicated. Therefore, the theoretical implications based on the theoretical

framework addressed in this study have been approved in the cases of the Greek HEIs and the attempted MA reform during the decade 1998-2008.

Mainly considering the MA change on a micro- level this thesis has indicated that the intra organizational dynamics play a key role in the evolution of a MA change, interacting to each other and impacting on the overall result and success of the change process. This means, that even though the initial stage of motivating/encoding may have successfully activated the successful progress of the process can be fallen in part or totally in the next phase of managing/enacting or later on the final stage of reproducing/institutionalizing. The emergence of the need of change and the initial positive reaction of the involved to change staff under a strong coalition that will guide and support change is not enough to secure the successful progress of the change process. Managing the whole process is also demanded to be activated in a positive way, such as top management commitment, communication, professional training and assistance of supporting systems, developing thus new behaviours and securing the universal participation in the change process. As it is claimed:

“Because organizations consist ultimately of people, organizational change essentially involves personal change. Change requires the participation of people who must first change themselves for organizational change to succeed”. (Bovey & Hede, 2001, p. 535)

Finally, reaching the final stage of the change process the new practices is needed to be enforced by continuously repeated, evaluated and rewarded in order to be totally institutionalized and to be unconsciously accepted and considering them as routines on a daily basis and the positive outcome of the successful accounting change process. The

above discussion highlights once more the complexity of MA accounting change process. This means that the relevant skills and expertise is needed to bring about the change to be successfully adopted in each phase of the change process. Therefore, this thesis has hopefully expected to contribute to the provision of knowledge related to the phenomenon of accounting change and a deeper understanding of the MA change process in order the phenomenon to be more efficiently managed by key organizational actors and managers of similar organizations and to be “better positioned to influence the path of change programmes within their own organisations, as well as anticipate potential problems along the way” (Burns, 1999, p. 568).

8.7 Further research implications

Even though the application of the accrual accounting system to the public entities has been broadly criticized, the extended adoption of the accrual accounting within all the Greek HEIs has been considered as imperative, due to the demanded effective allocation and management of the limited funding provided by the state (Papadeas, 2008). It is supported that the introduction of accrual accounting in public sector, aiming to the reform of the financial function of subsidized entities, was one of the most significant initiatives undertaken by the Greek government (Cohen et al., 2009). Especially, in the current era of the tremendous economic crisis and the even more limited resources that are available from the state funding, the introduction and the implementation of the accrual accounting system have become even more urgent.

However, all parts involved, such as government and HEIs, as well as, managers and administrators, who considered the accounting reform from the cash basis to the accrual

accounting system, should review the specific organizational settings in public sector entities regarding the conditions, priorities, and capabilities of each public sector entity and to examine the validity and benefits that may be achieved from such accounting reform. It is obvious that “General recommendations in favour of accrual accounting should not be considered overwhelmingly persuasive” (Wynne, 2003, p. 1). More over, it seems that people are the key actors in any change effort and they can strongly influence the extent in which the change effort could be successful or not. Indeed, it is supported that change management implies managing and changing people and not merely managing procedures and/or technical practices. It is claimed that:

“Indeed, the single most common source of leadership failure we’ve been able to identify - in politics, community life, business or the non-profit sector— is that people, especially those in positions of authority, treat adaptive changes like technical problems” (Heifetz & Linsky, 2002, p. 14).

The authors use the term “adaptive changes” implying change that is people oriented and needs changes in people’s attitudes and behaviours within the organization and does not be dealt with using existing organizational procedures and practices or technology. Lapsley et al. (2009) have argued that the shift from the cash basis accounting system to the accrual basis accounting system can also be considered as a change of conception. Therefore, further empirical research is demanded regarding the explanation of the organizational characteristics and the organizational dynamics, which interact in the micro- level within each individual Greek HEI in order to better understand the MA process and the way it could be implemented successfully. According to the empirical findings of the current study, even though the small size of

the sample, it is apparent that the success of the change implementation depends mainly on the key organizational actors, as well as, managers who guide the change process. They are the key persons who will apply the management practices which facilitate the change process and their reaction to the change policy is the key for the change success. As the failure of MA change within public organizations is still common phenomenon, more investigation is demanded focusing on key organizational actors and the factors that influence their perceptions and reaction regarding the benefited adoption of the accrual accounting. In the case of the Greek higher education sector, further empirical research is also expected to contribute to the general knowledge and explanation of the MA change within the public sector entities. According to Buhr (2010, p. 28) “accrual accounting is here to stay and eventually all levels of government will get there. The push for international uniformity will strengthen”. However, the use of accrual accounting in the public sector entities and especially within HEIs context is a relatively recent phenomena and it is still under investigation by the interested parts, both academics and accounting practitioners. It is true that the accounting reform based on the shift from the cash to accrual accounting may be beneficial in public sector if the appropriate context is secured. As Buhr (2010, p. 28) stated:

“But, given that there are some unique circumstances in the public sector, it can be expected that there will be some adaptation and some standards established strictly for the public sector.... There have been many dramatic changes to government accounting standard setting in the last 30 years and it remains to be seen what the next 30 years will hold”.

Consequently, accounting reforms in public sector should be considered very carefully in term of the specific context of public organizations facilitating thus the NPM

principles as a means of the public management reform and “not as an end in itself” (Wynne, 2003, p. 16). This means that various aspects should be concerned, such as the foundation of the accounting system adopted, in terms of the priorities of the attempted reform in total, and not of the perceived advantages and/or disadvantages of one accounting system in relation to another one.

Appendix I

Questionnaire Cover letter

**Durham University
Business School
Mill Hill Lane
Durham, DH1 3LB
United Kingdom**

Email: epaminondas.katsikas@durham.ac.uk

Questionnaire Cover letter

Dear Sir/Madam,

This questionnaire is part of a research project to understand, examine and interpret management accounting change in Greek Higher Education Institutions. Your responses are important in enabling me to obtain as full an understanding as possible of this issue. However, your decision to take part is entirely voluntary.

If you decide to take part, the questionnaire should take you about twenty minutes to complete or less. Please answer the questions in the spaces provided. If you wish to add further comments, please feel free to do so. The information you provide will be treated in the strictest confidence and with anonymity. You will notice that you are not asked to include your name or address anywhere on the questionnaire.

The answers from your questionnaire and others will be used as the main data set for my research project for my doctorate degree in accounting at Durham University.

I hope that you will find completing the questionnaire enjoyable. Please return the completed questionnaire to me, Epameinondas Katsikas in the enclosed Freepost envelope. If you have any questions or would like further information, please do not hesitate to contact me on +44 (0) 7798572999 or email me at Epaminondas.katsikas@durham.ac.uk.

Thank you for your help.

Epameinondas Katsikas

Appendix II

Structured Questionnaire on the accrual accounting implementation in the Greek HEIs

In my study I am looking at the change that has/or not occurred to the management accounting systems regarding the accrual accounting system at the Greek HEIs in the decade 1998-2008. This change had been required by the law (P. D. 205/1998). The aim of this research is to contribute to a more in-depth understanding of what influences the adoption, implementation and use in practice of the accrual accounting system in the Greek HEIs.

This questionnaire contains questions and statements about the implementation of the accrual accounting system as an aspect of the functioning of your own department. Please, answer the questions and tick the appropriate statement representing the alternative that best corresponds with your view on the attempted accounting change and process. For each statement, you may select only one answer.

Section A

A1. Name of the institution:

A2. Position of respondent:

A3. Years of employment in the financial department:

A4. Has the institution adopted the full implementation of the accrual accounting system? Yes ☐ No ☐

A5. If YES, since when has the institution adopted the new system?

Until 2001 ☐ Post 2001 ☐

A6. How do you think the following factors assisted the implementation of the accrual accounting system in your institution?

	Factors	Did not assist	Assisted hardly	Assisted somewhat	Assisted rather	Assisted markedly
A61	The governmental pressure					
A62	The commitment of leaders and top management					
A63	The professional support					

A64	The positive HEIs examples					

Section B

B1. How did you perceive the accounting change process regarding the accrual accounting system implementation?

	Statement	Strongly Disagree	Disagree	I am not sure	Agree	Strongly Agree
B1	A sense of urgency was created reinforcing the need for change					
B2	The change had the full support of the involved staff					
B3	Facts, figures and evidence were provided to persuade of the need for change					
B4	The right people were selected to form the guiding coalition for change					
B5	There was the guiding coalition to work together effectively as a team					
B6	A clear and tangible vision for change was created					
B7	The purpose, goal and objectives behind the change were clearly understood					
B8	There was sufficient information about the process of the change					
B9	There was a clear understanding of the change's process by the involved staff					
B10	The necessary orientation was provided concerning the changing process					
B11	The desired future situation was clearly described					
B12	It was believed that the change was the right way for the organization to provide better service					
B13	Staff was encouraged to share thoughts and ideas about the plan of change process					
B14	Before the implementation of the change plans the changes and the plan were widely communicated					
B15	The change vision was communicated clearly and frequently					
B16	The communication from top management about the change plan was assuring					
B17	There was leadership commitment to consistent and ongoing communication					
B18	The communication was clear and useful to answer queries and worries					
B19	There was offered the opportunity to					

	ask questions and get answers about the change					
B20	Suggestions from the involved staff were always received by my supervisors					
B21	There was information and training on the expectations of the change process					
B22	Commitment from top management was visible					
B23	Top management had an adequate understanding of change					
B24	There was co-operation across all functional areas					
B25	Emerging problems was resolved by quick remedial action					
B26	All involved staff had been trained on new requirements ensuring that capacity was built					
B27	Capacity building of affected staff had taken place through customized training					
B28	Top management had ensured that sufficient resources were made available to the involved staff					
B29	Top management's behaviour was aligned and appropriate to the goals of the change					
B30	A learning environment for involved staff was promoted accordingly the change					
B31	All involved staff enjoyed meaningful participation					
B32	Everyone was ensured to be actively involved and being productive					
B33	Top management was available to answer questions					
B34	Top management clarified issues as required					
B35	The group atmosphere was ensured to be positive					
B36	There was visibly recognition and rewarding those delivering short-term wins towards achievement of the long term vision					
B37	There was recruitment, promotion and development of the right people to implement the change					
B38	There was assessment of the results in line with the plan					
B39	There was examination of the reasons for successes and failures					
B40	The was check that the original success criteria have been achieved					
B41	Top management ensured that change is properly managed throughout the process					
B42	Staff was empowered to act on the new vision					
B43	The new state was formalised,					

	implemented and monitored on a continuous basis					
B44	Changes were institutionalised through structures, systems and procedures					
B45	Provision was made for continuous training and refresher courses to reinforce the newly acquired behaviour					
B46	Staff was encouraged and facilitated to accept and comply with the new changed environment					
B47	Staff was discouraged from reverting to old practices					

Section C

C1. How do you account for recognition and measurement of fixed assets?

	Statement	YES	NO
C11	Fixed assets are recognised		
C12	A fixed asset register is maintained		
C13	The fixed asset records full details such as description, purchase date, cost, etc.		
C14	Land is recognised as a fixed asset		
C15	Infrastructure assets are recognised		
C16	Heritage assets are recognised		
C17	Assets in progress are recognised		
C18	Fixed assets are recognised at historic cost		
C19	Fixed assets are recognised at fair value		
C110	Fixed assets are re-valued using price indices		

C2. How do you account for depreciation and maintenance costs of fixed assets?

	Statement	YES	NO
C21	Depreciation on assets is accounted for		
C22	Maintenance costs on fixed assets are recognised as part of the asset		
C23	Adjustments are made to depreciation on re-valued assets		
C24	Asset enhancements are capitalized		
C25	Depreciation is recognised where above revaluation		

C3. How do you account for fixed assets in the opening balance sheet?

	Statement	YES	NO
C31	Fixed assets are included at cost on opening balance sheet		
C32	Fixed assets are included at fair value on the opening balance sheet		
C33	Only depreciable fixed assets are included on the opening balance sheet		

C4. How do you account for stocks/inventories?

	Statement	YES	NO
C41	Inventories are recorded		
C42	All stocks are recognised		
C43	Stocks are recognised at fair value		
C44	Stocks are recognised at book value		

C5. How do you account for revenues and expenses?

	Statement	YES	NO
C51	Revenues are recognised when earned		
C52	Expenses are recognised when incurred		
C53	Revenue and expenses are accrued for		
C54	Expenses are recognised when goods are ordered but not delivered or invoiced		
C55	Expenses are recognised when paid and adjust at the year end		
C56	Provisions are recognised if criteria are met		
C57	Budget plays no part in criteria for recognition		
C58	Revenues and expenses are recognised only if in the budget		

C6. How do you account for financial reporting?

	Statement	YES	NO
C61	Annual financial statements are prepared		
C62	Short term (trimester basis) financial statements are prepared		
C63	Financial statements are audited		

C7. How do you account for receivables?

	Statement	YES	NO
C71	Records of amount due to you in respect of revenue earned are maintained		
C72	An assessment of what debtors are likely to exist can be provided		
C73	Balances of debtors can be provided		

C8. How do you account for payables?

	Statement	YES	NO
C81	Payables are recorded at the point at which goods and services are received		
C82	A summary of each source of expenditure can be provided		
C83	An outline of how the amounts are currently recorded in the accounting records can be provided		

C9. How do you account for cash and cash equivalents?

	Statement	YES	NO
C91	All bank balances maintained are recorded and reconciled them at the period end		
C92	A schedule of cash and cash equivalents at the period end can be provided, showing the account details and balances held		

C10. How do you account for costing?

	Statement	YES	NO
C101	Cost centres/pools/objects and structure are clearly defined		
C102	The cost of capital is calculated		
C103	Direct and indirect cost is calculated		
C104	Fixed and variable cost is calculated		
C105	Costing updates are calculated		

Thank you for your answers!
Your contribution to this study is appreciated!

Appendix III

Semi – structured interview questionnaire

Section A

A1. Did you work at the financial department since the issuance of the P.D. 205/98?

A2. Does the Institution implement the accrual accounting system? Since when has adopted the accrual accounting system?

A3. Did you have any involvement from the beginning of the change process? In what position?

Section B

B1. What was the promoter of the accounting change? Did you feel any pressure and/or motivation towards the implementation of this change?

B2. Was there any further kind of pressure and/or motivation from the promoter of this change forward its implementation?

B3. How was the accounting system before? Did you feel satisfied from this? If not, why? Did you feel that this particular change was a necessity and/or of major importance and why?

B4. How did the involved employees react to the change? Did they react positively or negatively? Why do you think they reacted that way?

B5. Did top management play any role in implementing the change? Did top management ensure that sufficient processes and resources were made available for the implementation of the change?

B6. Did you have any prior knowledge, experience or training on accrual accounting principles and applications? Did the involved employees have? Did you obtain any external professional assistance to support the implementation of change?

B7. Did you copy a similar HEI in Greece for implementing the accrual accounting system? Did you use best practices from a similar HEI or other organizations?

B8. Did top management enforce the application of the new accounting practices? Did involved staff implement the new practices in a daily basis?

Section C

C1. What do you think about the usefulness of the new system accounting information? Is accounting information used by top management for decision making purposes?

C2. What do you think about the usefulness of the financial information provided by the new system? Is financial reporting information used for budgeting and future planning purposes? Is financial reporting information used by the Ministry of education?

C3. What do you think about the usefulness of the new system costing information? Is accrual information used to follow up of the costing? Is costing information used to resource allocation?

Appendix IV

THE CONSTITUTION OF GREECE

In the name of the Holy and Consubstantial and Indivisible Trinity
THE FIFTH REVISIONARY PARLIAMENT OF THE HELLENES RESOLVES

PART TWO INDIVIDUAL AND SOCIAL RIGHTS

Article 16 (Education, Art, Science)

1. Art and science, research and teaching shall be free and their development and promotion shall be an obligation of the State. Academic freedom and freedom of teaching shall not exempt anyone from his duty of allegiance to the Constitution.

2. Education constitutes a basic mission for the State and shall aim at the moral, intellectual, professional and physical training of Greeks, the development of national and religious consciousness and at their formation as free and responsible citizens.

3. The number of years of compulsory education shall be no less than nine.

4. All Greeks are entitled to free education on all levels at State educational institutions. The State shall provide financial assistance to those who distinguish themselves, as well as to students in need of assistance or special protection, in accordance with their abilities.

5. Education at university level shall be provided exclusively by institutions which are fully self-governed public law legal persons. These institutions shall operate under the supervision of the State and are entitled to financial assistance from it; they shall operate on the basis of statutorily enacted by-laws. Merging or splitting of university level institutions may take place notwithstanding any contrary provisions, as a law shall provide.

A special law shall define all matters pertaining to student associations and the participation of students therein. 6. Professors of university level institutions shall be public functionaries. The remaining teaching personnel likewise perform a public function, under the conditions specified by law. The statutes of respective institutions shall define matters relating to the status of all the above. Professors of university level institutions shall not be dismissed prior to the lawful termination of their term of service, except in the cases of the substantive conditions provided by article 88 paragraph 4 and following a decision by a council constituted in its majority of highest judicial functionaries, as specified by law. The retirement age of professors of university level institutions shall be determined by law; until such law is issued, professors on active service shall retire ipso jure at the end of the academic year at which they have reached the age of sixty-seven.

7. Professional and any other form of special education shall be provided by the State, through schools of a higher level and for a time period not exceeding three years, as specifically provided by law which also defines the professional rights of the graduates of such schools.

8. The conditions and terms for granting a license for the establishment and operation of schools not owned by the State, the supervision of such and the professional status of teaching personnel therein shall be specified by law. The establishment of university level institutions by private persons is prohibited.

9. Athletics shall be under the protection and the ultimate supervision of the State. The State shall make grants to and shall control all types of athletic associations, as specified by law. The use of grants in accordance with the purpose of the associations receiving them shall also be specified by law.

References

- Abbott, A. (1998). The causal devolution. *Sociological Methods & Research*, 27(2), 148-181.
- Abernethy, M. A. & Chua, W. F. (1996). A field study of control systems “redesign”: the impact of institutional processes on strategic choice. *Contemporary Accounting Research*, 13, 569-606.
- Abu Kasim, N. A. (2004). Corporatisation, loose coupling and stability: the role of accounting and accountants in a Malaysian public utility. In *the Conference on New Directions in Management Accounting, EIASM, Brussels*, 9-11.
- Ahmed, M. N., & Scapens, R. W. (2000). Cost allocation in Britain: towards an institutional analysis. *European Accounting Review*, 9(2), 159-204.
- Akin, G., & Palmer, I. (2000). Putting metaphors to work for change in organizations. *Organizational Dynamics*, 28(3), 67-79.
- Amaratunga, D., & Baldry, D. (2002). Moving from performance measurement to performance management. *Facilities*, 20(5/6), 217-223.
- Amat, J., Carmona S. & Roberts H. (1994). Context and Change in Management Accounting Systems: A Spanish Case Study. *Management Accounting Research*, 5(2), 107-122.
- Anderson, S.W. (1995). Framework for assessing cost management system changes: the case of activity-based costing implementation at General Motors 1986–1993. *Journal of Management Accounting Research*, 7(1), 1-51.
- April, K. A. (1999). Leading through communication, conversation and dialogue. *Leadership & Organization Development Journal*, 20(5), 231-242.
- Argyris, C., & Kaplan, R. S. (1994). Implementing new knowledge: the case of activity-based costing. *Accounting Horizons*, 8(3), 83-83.
- Armenakis, A. A., & Harris, S. G. (2002). Crafting a change message to create transformational readiness. *Journal of Organizational Change Management*, 15(2), 169-183.
- Armstrong, M. (2006). *A Handbook of Human Resource Management Practice* (10th ed.). London: Kogan Page.
- Arnaboldi, M., & Azzone, G. (2004). Benchmarking University Activities: An Italian Case Study. *Financial Accountability & Management*, 20(2), 205-220.

Arnaboldi M., & Lapsley I. (2009). On the Implementation of Accrual Accounting: A Study of Conflict and Ambiguity. *European Accounting Review*, 18(4), 809-836.

Arroyo, P. (2012). Management accounting change and sustainability: an institutional approach. *Journal of Accounting & Organizational Change*, 8(3), 286-309.

Asteriou, D., & Agiomirgianakis, G. M. (2001). Human capital and economic growth: time series evidence from Greece. *Journal of Policy Modeling*, 23, (5), 481-489.

Ax, C., & Bjørnenak, T. (2005). Bundling and diffusion of management accounting innovations—the case of the balanced scorecard in Sweden. *Management Accounting Research*, 16, (1), 1-20.

Azzone, G., & Palermo, T. (2011). Adopting performance appraisal and reward systems: A qualitative analysis of public sector organisational change. *Journal of organizational change management*, 24(1), 90-111.

Azorín, J. M., & Cameron, R. (2010). The application of mixed methods in organisational research: a literature review. *Electronic Journal of Business Research Methods*, 8(2), 95-105.

Babbie, E. R. (1990). *Survey research methods* (Vol. 2). Belmont, CA: Wadsworth Publishing Company.

Baines, A., & Langfield-Smith, K. (2003). Antecedents to management accounting change: a structural equation approach. *Accounting Organizations and Society*, 28, (7), 675-698.

Ball, A. (2004). A sustainability accounting project for the UK local government sector? Testing the social theory mapping process and locating a frame of reference. *Critical Perspectives on Accounting*, 15, (8), 1009-1035.

Ball, S. (2007). *Education Plc: Understanding Private Sector Participation in public sector education*. Routledge.

Balogun, J. and Hailey, V. H. (2004). *Exploring Strategic Change*, (2nd ed.). Harlow: Prentice-Hall.

Barley, S. R., & Tolbert, P. S. (1997). Institutionalization and structuration: Studying the links between action and institution. *Organization Studies*, 18(1), 93–117.

Baron, R. A., & Greenberg, J. (1993). *Behavior in Organizations: Understanding and Managing the Human Side of Work*. Greenberg. Allyn and Bacon.

Bartelse, J. (1999). Concentrating the minds. The institutionalisation of the graduate school innovation in Dutch and German higher education. *Management and Policy in Higher Education*, 29.

- Bartlett, M. S. (1954). A note on the multiplying factors for various χ^2 approximations. *Journal of the Royal Statistical Society. Series B (Methodological)*, 296-298.
- Barton, A. D. (1999). A trusteeship Theory of Accounting for Natural Capital Assets. *Abacus*, 35(2), 207-222.
- Barton, A. D. (2009). The Use and abuse of accounting in the Public Sector Financial Management Reform Programme in Australia. *Abacus*, 45(2), 221-248.
- Bealing, W. E., & Riordan, D. A. (1996). Institutional Theory-What Does it Mean for College Administrative Behavior?. *Spectrum-Lexington*, 69, 32-37.
- Beckhard, R. (1969). Strategies of organizational development. *Reading*.
- Beer, M. Eisenstat, R.A. & Spector, B. (1990). Why Change Programs Don't Produce Change. *Harvard Business Review*, 68 (6), 158-166.
- Beer, M., & Nohria, N. (2000). *Breaking the code of change*. Boston, MA: Harvard Business School Press.
- Bernerth, J. (2004). Expanding our understanding of the change message. *Human Resource Development Review*, 3(1), 36-52.
- Berry, A., Loughton, E. & Otley, D. T. (1991). Control in a financial services company (RIF): a case study. *Management Accounting Research*, 2(2), 109-139.
- Bjørnønenak, T., & Olson, O. (1999). Unbundling management accounting innovations. *Management Accounting Research*, 10(4), 325-338.
- Blaikie, N. W. H. (2000). *Designing social research: the logic of anticipation*. Cambridge, UK; Malden, MA: Polity Press: Blackwell.
- Boons, F., & Strannegård, L. (2000). Organizations Coping with Their Natural Environment: A Laboratory for Institutionalization?. *International Studies of Management & Organization*, 7-17.
- Bourantas, D., & Papadakis, V. (1996). Greek management: diagnosis and prognosis. *International Studies of Management & Organization*, 26 (3), 13-32.
- Bovey, W. H., & Hede, A. (2001). Resistance to organizational change: the role of cognitive and affective processes. *Leadership & Organization Development Journal*, 22(8), 372-382.
- Broadbent, J., & Guthrie, J. (1992). Changes in the Public Sector: A Review of Recent "Alternative" Accounting Research. *Accounting, Auditing & Accountability Journal*, 5(2), 3-31.

Broadbent, J., & Laughlin, R. (1998). Resisting the “new public management”: absorption and absorbing groups in schools and GP practices in the UK. *Accounting, Auditing & Accountability Journal*, 11(4), 403-435.

Broadbent, J., & Laughlin, R. (2005). Organisational and accounting change: theoretical and empirical reflections and thoughts on a future research agenda. *Journal of Accounting & Organizational Change*, 1(1), 7-25.

Bridges, W., & Mitchell, S. (2000). Leading transition: A new model for change. *Leader to Leader*, 16(3), 30-6.

Briers, M., & Chua, W. F. (2001). The role of actor-networks and boundary objects in management accounting change: a field study of an implementation of activity-based costing. *Accounting, Organizations and Society*, 26(3), 237-269.

Brignall, S., & Modell, S. (2000). An institutional perspective on performance measurement and management in the ‘new public sector’. *Management Accounting Research*, 11(3), 281-306.

Brisson-Banks, C. V. (2010). Managing change and transitions: a comparison of different models and their commonalities. *Library Management*, 31(4/5), 241-252.

Bryman, A. (2001). *Social research methods*. Oxford, New York: Oxford University Press.

Bryman, A. (2011). Mission accomplished?: Research methods in the first five years of Leadership. *Leadership*, 7(1), 73-83.

Bryman, A. (2012). *Social research methods*. Oxford, New York: Oxford university press.

Bryman, A., & Bell, E. (2003). *Business research methods*. Oxford, Oxford University Press.

Bryman, B. & Bell, E. (2007). *Business Research Methods*, (2nd ed.). Oxford: Oxford University Press.

Buhr, N. (2010). *From cash to accrual and domestic to international: government accounting standard setting in the last 30 years*. Plenary speech delivered in Sixth Accounting History International Conference, Wellington, New Zealand.

Bullock, R. J., & Batten, D. (1985). It's just a phase we're going through: a review and synthesis of OD phase analysis. *Group & Organization Management*, 10(4), 383-412.

Burke, W. (1994). *Organization development: A process of learning and changing*, (2nd ed.). Reading, MA: Addison-Wesley Publishing Company.

Burke, W. W. (2002). *Organization change theory and practice*. Thousand Oaks, CA: Sage Publications.

Burnes, B. (1996). No such thing as... a "one best way" to manage organizational change. *Management Decision*, 34(10), 11-18.

Burnes, B. (2004). *Managing Change: A Strategic Approach to Organisational Dynamics*. Harlow, Financial Times Prentice Hall.

Burns, J., & Scapens, R.W. (2000) Conceptualizing management accounting change: an institutional framework. *Management Accounting Research*, 11(1), 3-25.

Burns, J., & Vaivio, J. (2001). Management accounting change. *Management Accounting Research*, 12(4), 389-402.

Burns, J., M. Ezzamel and Scapens R. W.(1999). Management Accounting Change in the Uk. *Management Accounting*, 77(3), 28-30.

Burns, J. (2000). The dynamics of accounting change inter-play between new practices, routines, institutions, power and politics. *Accounting, Auditing & Accountability Journal*, 13(5), 566-596.

Burns, J. (2001). Institutional theory in management accounting research: towards more pluralistic dialogue in conceptualizing management accounting change. MSA Dis.P.

Burns, J., & Baldvinsdottir, G. (2005). An institutional perspective of accountants' new roles—the interplay of contradictions and praxis. *European Accounting Review*, 14, (4), 725-757.

Burns, J., Ezzamel, M. & Scapens, R. W. (2003). *The Challenge of Management Accounting Change: Behavioural and Cultural Aspects of Change Management*. Amsterdam, CIMA, Elsevier Ltd.

Burns, J. & Scapens, R. W. (2000). Conceptualizing management accounting change: an institutional framework. *Management Accounting Research*, 11(1), 3-25.

Burns, J., & Vaivio, J. (2001). Management accounting change. *Management accounting research*, 12(4), 389-402.

Burns, J., & Yazdifar, H. (2001). Tricks or treats. *Financial Management*, 33, 35.

Busco, C., Riccaboni, A., & Scapens, R. W. (2006). Trust for accounting and accounting for trust. *Management Accounting Research*, 17(1), 11-41.

Byrnes, R. (2005). Review of Balancing Change and Tradition in Global Education Reform. *The Teachers College Record*, 107(7), 1504-1506.

- Carlin, T. M. (2005). Debating the impact of accrual accounting and reporting in the public sector. *Financial Accountability and Management*, 21(3), 309-336.
- Carnall, C. (2003). *Managing Change in Organizations*. Pearson Education Limited, Harlow.
- Carnegie, G. D. & West, B. P. (2003). How well does accrual accounting fit the public sector?. *Australian Journal of Public Administration*, 62(2), 83-86.
- Carruthers, B. G. (1995). Accounting, ambiguity, and the new institutionalism. *Accounting, Organisations and Society*, 26, 565-596.
- Carstea, A., Nistor, C. S., & Tiron, T. (2012). The Way of Public Institutions to Accrual Accounting—case study Romania. *Euro Economica*, 28, 57-74.
- Cartwright, D. (1959). Lewinian theory as a contemporary systematic framework. *Psychology: A study of a science*, 2, 7-91.
- Cascio, R., Mariadoss, B. J., & Mouri, N. (2010). The impact of management commitment alignment on salespersons' adoption of sales force automation technologies: An empirical investigation. *Industrial Marketing Management*, 39(7), 1088-1096.
- Cheng, J. S. L. & Petrovic-Lazarevic, S. (2004). *The Role of Effective Leadership in Doing More with Less in Public Universities*. Paper presented at Global Business and Technology Association Sixth Annual Conference, Cape Town, South Africa, June.
- Choe, J. M. (2004). The relationships among management accounting information, organizational learning and production performance. *The Journal of Strategic Information Systems*, 13(1), 61-85.
- Christensen, C. M., & Overdorf, M. (2000). Meeting the challenge of disruptive change. *Harvard Business Review*, 78(2), 66-77.
- Christensen, M. (2002). Accrual accounting in the public sector: the case of the New South Wales government. *Accounting History*, 7(2), 93-124.
- Christensen, M. (2003). Without 'reinventing the wheel': business accounting applied to the public sector. *Australian Accounting Review*, 13(2), 22-27.
- Christiaens, J. (2000). Municipal accounting reform in Flanders: an empirical study of the outcomes in: E. Caperchione and R. Mussari (Eds) *Comparative Issues in Local Government Accounting*, 103-124, Boston MA Kluwer.
- Christiaens, J. (2001). Converging New Public Management Reforms and Diverging Accounting Practices in Flemish Local Governments. *Financial Accountability & Management*, 17(2), 153-70.

Christiaens, J., & Van Peteghem, V. (2003). Governmental Accounting Reform: Evolution of the Implementation in Flemish Municipalities. *Financial Accountability & Management*, 23(4), 375-399.

Christiaens, J., & de Wielemaker E. (2003). Financial accounting reform in Flemish universities: an empirical study of the implementation. *Financial Accountability & Management*, 19(2), 185-204.

Christiaens, J., & Rommel, J. (2008). Accrual Accounting Reforms: Only in businesslike (parts of) governments. *Financial Accountability & Management*, 24(1), 59-75.

Churchill Jr, G. A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of marketing research*, 64-73.

Cinquini L., Marelli, A., & Vitali, P. M. (2000). *Cost Accounting Practices in Italian Universities: A Survey*. The 23rd Annual Congress of the European Accounting Association (March 29–31, Munich).

Clarke, P., & Lapsley, I. (2004). Management accounting in the new public sector. *Management Accounting Research*, 15(3), 243-245.

Cobb, I., Helliard, C., & Innes, J. (1995). Management accounting change in a bank. *Management Accounting Research*, 6(2), 155-175.

Cohen, S. (2007). *How Different are Accrual Accounting Financial Measures Compared to Cash Accounting ones? Evidence from Greek Municipalities*. 6th Annual Conference of the Hellenic Accounting and Finance Association, Patras, December 14-15.

Cohen, M. D., Burkhart, R., Dosi, G., Egidi, M., Marengo, L., Warglien, M. & Winter, S. G. (1996). Routines and Other Recurrent Action Patterns of Organizations: Contemporary Research Issues. *Industrial and Corporate Change*, 5, 653-698.

Cohen, S., Kaimenaki, E., & Zorgios, Y. (2007). Assessing IT as a Key Success Factor for Accrual Accounting Implementation in Greek Municipalities. *Financial Accountability and Management*, 23(1), 91-111.

Cohen, S., Kaimenakis, N. & Venieris, G. (2009). Reaping the Benefits of Two Worlds: An Exploratory Study of the Cash and the Accrual Accounting Information Roles in Local Governments. Available at: <http://ssrn.com/abstract=1441896>, accessed on April 27, 2010.

Cohen, S., Kaimenakis, N. & Venieris, G. (2013). Reaping the benefits of two worlds: An exploratory study of the cash and the accrual accounting information roles in local governments. *Journal of Applied Accounting Research*, 14(2), 165-179.

Collis, J. & Hussey, R. (2003). *Business Research: A Practical Guide for Undergraduate and Postgraduate Students*. Basingstoke, Palgrave Macmillan.

Connolly, C., & Hyndman, N. (2006). The actual implementation of accruals accounting: caveats from a case within the UK public sector. *Accounting, Auditing & Accountability Journal*, 19(2), 272-290.

Cooper, D. J. (1990). *Critical Accounts: Reorientating Accounting Research*. (edited with T. Hopper), Macmillan Press.

Cooper, D. R., & Schindler, P. S. (2008). *Business research method*. Boston. *America: McGraw-Hill Education*.

Covaleski, M. A., Dirsmith, M. W., Samuel, S. (1996). Managerial accounting research: The contributions of organizational and sociological theories. *Journal of Management Accounting research*, 8, 1-35.

Creswell, J. W. (1994). *Research design: Qualitative and quantitative research approaches*. Thousand Oaks, CA: Sage.

Creswell, J. W. (2002). *Research design: Qualitative, quantitative, and mixed methods approaches*. New York: Sage Publications.

Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches*. (2nd ed.). Thousand Oaks, CA: Sage.

Creswell, J.W. (2005). Educational research: Planning, conducting and evaluating quantitative and qualitative research (2nd ed.), Upper Saddle River, N.J.: Pearson Merrill Prentice Hall.

Creswell, J. W., & Clark, V. L. P. (2007). *Designing and conducting mixed methods research*. Thousand Oaks, CA: Sage Publications.

Creswell, J. W., & Tashakkori, A. (2007). Editorial: Developing publishable mixed methods manuscripts. *Journal of Mixed Methods Research*, 1(2), 107-111.

Crooper, P., & Cook, R. (2000). Activity-based costing in universities-five years on. *Public Money and Management*, 20(2), 61-68.

Csizmadia, T.G. (2006). *Quality Management in Hungarian Higher Education: organisational responses to governmental policy*. AE Enschede: CHEPS/UT.

Cummings, T. G., & Worley, C. G. (1997). *Organization Development and Change*, (6th ed.). Cincinnati: West Publishing, Co.

Cummings, T. G. & Worley, C. G. (2001). *Organizational development and change*, (7th ed.). Ohio: South-Western College Publishing.

Currall, S.C. & Towler, A.J. (2003). Research Methods in Management and Organizational Research: Toward Integration of Qualitative and Quantitative Techniques. In A. Tashakkori and C. Teddlie (Eds.) *Handbook of Mixed Methods in Social and Behavioral Research*. Thousand Oaks, CA: Sage Publications, 513-526.

Czarniawska, B., & Wolff, R. (1998). Constructing new identities in established organization fields: Young universities in old Europe. *International Studies of Management & Organization*, 28(3), 32-56.

Dacin, M. T., Goodstein, J., & Scott, W. R. (2002). Institutional theory and institutional change: Introduction to the special research forum. *The Academy of Management Journal*, 45(1), 43-56.

Daft, R. L. (1997). *Management*. Fort Worth: Dryden Press

Danish, Q. R., Usman, A. (2010). Impact of Reward and Recognition on Job Satisfaction and Motivation: An Empirical Study from Pakistan. *International Journal of Business and Management*, 5(2), 159.

Dawson, C. (1994). Human resource accounting: From prescription to description?. *Management Decision*, 32(6), 35-40.

Deaconu, A., Nistor, C.S., & Filip, C. (2011). The impact of accrual accounting on public sector management. An exploratory study for Romania. *Transylvanian Review of Administrative Sciences*, 32(E), 74-97.

Deaconu, A. (2011). Principles and rules-based accounting debate. Implications for an emergent country. *Annals of Faculty of Economics*, 1(1), 602-608.

Del Val, M. P., & Fuentes, C. M. (2003). Resistance to change: a literature review and empirical study. *Management Decision*, 41(2), 148-155.

Demartini, P. (2004). *Management Control and Quality Assurance in Universities: A Case Study*. 27th Congress of the EAA, Prague, Czech Republic.

Denzin, N. K. (2001). *Interpretive interactionism* (Vol. 16). SAGE Publications, Incorporated.

De Vaous, D. A. (1996). *Surveys in Social Research*. UCL Press Limited: London.

Dickinson, C. (2000). International Federation of Accountants. *Accountancy SA*, August(S1).

Diefenbach, T. (2007). The managerialistic ideology of organisational change management. *Journal of Organizational Change Management*, 20(1), 126-144.

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American sociological review*, 147-160.

DiMaggio, P. J., & Powell, W. W. (1991). *The new institutionalism in organizational analysis*. Chicago: University of Chicago Press.

DiMaggio, P. J., & Powell, W. W. (1991b). The iron cage revisited: institutional isomorphism and collective rationality in organisational fields in W. W. Powell & P. J. DiMaggio (Eds), *The New Institutionalism in Organisational Analysis*, Chicago, IL: University of Chicago Press, 63-82.

Dunning, H., Williams, A., Abonyi, S., & Crooks, V. (2008). A mixed method approach to quality of life research: A case study approach. *Social Indicators Research*, 85(1), 145-158.

Dunphy, D. (2000). Embracing paradox: Top-down versus participative management of organizational change, a commentary on Conger and Bennis. *Breaking the code of change*, 123-135.

Easterby-Smith, M., Golden-Biddle, K., & Locke, K. (2008). Working with pluralism determining quality in qualitative research. *Organizational Research Methods*, 11(3), 419-429.

Eisenhardt, K. M., & Graebner, M. E. (2007). Theory building from cases: Opportunities and challenges. *Academy of Management Journal*, 50(1), 25-32.

Ellwood, S., & Newberry, S. (2007). Public sector accrual accounting: institutionalizing neo-liberal principles. *Accounting, Auditing and Accountability Journal*, 20(4), 549-573.

Elrod II, P. D., & Tippet, D. D. (2002). The “death valley” of change. *Journal of Organizational Change Management*, 15(3), 273-291.

English, L. (2000). ‘Public sector management in the state of Victoria 1992-1999: Genesis of the transformation’, in L. Jones, J. Guthrie and P. Steane (Eds.), *Learning from international public management reform, Volume II-A research in public policy analysis and management*, Oxford, UK: JAI Press.

Eriotis, N., Stamatiadis, F., & Vasiliou, D. (2011). Assessing Accrual Accounting Reform in Greek Public Hospitals: An Empirical Investigation. *International Journal of Economic Sciences and Applied Research*, 4(1), 153-183.

Eurydice. (2000). Two decades of reform in Higher Education in Europe: 1980 onwards. Brussels: The information Network of Education in Europe, Eurydice. Available at: www.eurydice.org, accessed on January 25, 2008.

Fédération des Experts Comptables Européens, (2002). Accrual Accounting in the Public Sector, paper presented to the FEE Public Sector Committee. Brussels, Belgium.

Fédération des Experts Comptables Européens, (2007). Accrual Accounting in the Public Sector, paper presented to the FEE Public Sector Committee. Brussels, Belgium.

Feldman, M. S., & Pentland, B. T. (2003). Reconceptualizing organizational routines as a source of flexibility and change. *Administrative Science Quarterly*, 48(1), 94-118.

Feldman, M. S. (2000). Organizational routines as a source of continuous change. *Organization Science*, 11(6), 611-629.

Fernandez, L. & Rainey, G. H. (2006). Managing Successful Organizational Change in the Public Sector. *Public Administration Review*, 66(2), 168-176.

Field, A. (2009). *Discovering statistics using SPSS*. Sage publications.

Fink, A. (1995). *How to measure survey reliability and validity*, (7th ed.). Thousand Oaks, CA: Sage.

Fligstein, N. (1991). The structural transformation of American industry: An institutional account of the causes of diversification I the largest firms, 1919-1979. in W. Powell & P. DiMaggio (Eds), *The new institutionalism in organizational analysis*: 311-336. Chicago: University of Chicago Press.

Foddy, W. (1994). *Constructing questions for interviews and questionnaires: theory and practice in social research*. Cambridge university press.

Ford, J. D. & Ford, L. W. (1994), Logics of identity, contradiction, and attraction in change. *The Academy of Management Review*, 19, 756-785.

Foster. B. P. & Ward T. J. (1994). The theory of perpetual management accounting innovation lag in hierarchical organizations. *Accounting, Organizations and Society*, 19, 401-411.

Frahm, J., & Brown, K. (2007). First steps: linking change communication to change receptivity. *Journal of Organizational Change Management*, 20(3), 370-387.

Friedman, A. L., & Lyne, S. R. (1995). *Activity-Based Techniques*. Chartered Institute of Management Accountants.

Friedman, A. L., & Lyne, S. R. (1999). *Success and Failure of Activity-based Techniques: A long-term perspective*. Londres: Chartered Institute of Management Accountants.

- Fujimura, D. (2007). Lyman Mills and Its Encounter with Public Accountants. Inventory Costing Circa 19 20. *Accounting Historians Journal*, 34 (2), 169-200.
- Fuller, J. B., Hester, K., Barnett, T., Frey, L., Relyea, C., & Beu, D. (2006). Perceived external prestige and internal respect: New insights into the organizational identification process. *Human relations*, 59(6), 815-846.
- Funell, W. N., & Cooper, K. (1998). *Public sector accounting and accountability in Australia*. University of New South Wales Press Ltd.
- Galpin, T. J. (1996). *The human side of change: A practical guide to organization redesign*. San Francisco, CA: Jossey-Bass.
- Garg, R. K., & Singh, T. P. (2006). Management of change-A comprehensive review. *Global Journal of Flexible Systems Management*, 7(1/2), 45-60.
- Gates, G. S. (1997). Isomorphism, homogeneity, and rationalism in university retrenchment. *The Review of Higher Education*, 20(3), 253-275.
- George, J. M., Jones, G. R., & Sharbrough, W. C. (2002). *Understanding and managing organizational behavior*. Upper Saddle River, NJ: Prentice Hall.
- Georgiadis, N. M. (2005). Trends in State Education Policy in Greece: 1976 to the 1997 Reform. *Education policy analysis archives*, 13(9).
- Georgiadis, N. M. (2007). Educational reforms in Greece (1959-1997) and human capital theory. *Journal for Critical Education Policy Studies*, 5 (2).
- Gillibrand, A., & Hilton, B. (1998). Resource accounting and budgeting: principles, concepts and practice-the MoD case. *Public Money and Management*, 18(2), 21-28.
- Gomez, E. T., & Jomo, K.S. (1999). *Malaysia's political economy: Politics, patronage and profits*. Cambridge: Cambridge University Press.
- Gornitzka, A. (1999). Governmental policies and organisational change in higher education. *Higher education*, 38(1), 5-31.
- Gosselin, M. (1997). The effect of strategy and organisational structure on the adoption and implementation of activity-based costing. *Accounting, Organisations and Society*, 105-122.
- Gouvias, D. S. (2007). The 'Response' of the Greek State to Global Trends of Educational Policy Making. *European Educational Research Journal*, 6(1), 25-38.
- Gouvias, D. (2012). The Post-Modern Rhetoric of Recent Reforms in Greek Higher Education. *Journal for Critical Education Policy Studies*, 10(2), 282-313.

- Gouvias, D. (2012). Accountability in the Greek Higher Education System as a High-Stakes Policymaking Instrument. *Higher Education Policy*, 25, 65-68.
- Granlund, M. (2001). Towards explaining stability in and around management accounting systems. *Management Accounting Research*, 12(2), 141–166.
- Granlund, M. and Lukka, K. (1998a). It's a Small World of Management Accounting Practices. *Journal of management accounting research*, 10, 154-179.
- Greene, J. C. (2007). *Mixed methods in social inquiry*. (9th ed). Jossey-Bass.
- Greenwood, R. & Hinings, C. R. (1996). Understanding radical organizational change: bringing together the old and the new institutionalism. *Academy of Management Review*, 21(4), 1022-1054.
- Greenwood, R., Hinings, C. R., & Suddaby, R. (2002). Theorizing change: The role of professional associations in the transformation of institutionalized fields. *Academy of management journal*, 45(1), 58-80.
- Grover, V., Teng, J. & Fiedler, K., (1995). The implementation of business process reengineering. *Journal of Management Information Systems* 12, 109-144.
- Groves, R. M., Fowler, F. J., Couper, M. P., Lepkowski, J. M., Singer, E. & Tourangeau, R. (2004). *Survey methodology*. Hoboken, NJ: John Wiley & Sons.
- Groves, R., Pendlebury, M., & Newton, J. (1994). Management accounting information in universities: a Cardiff experiential perspective. In Berry, R.H. (Eds.), *Management Accounting in Universities*, CIMA, London.
- Grundy, T. (1993). Putting value on a strategy. *Long Range Planning*, 26(3), 87-94.
- Guerreiro, R., Pereira, C. A., & Frezatti, F. (2006). Evaluating management accounting change according to the institutional theory approach: a case study of a Brazilian bank. *Journal of Accounting & Organizational Change*, 2(3), 196-228.
- Guthrie, J., & Johnson, M. (1994). Commercialisation of the public sector: why, how and for what? A prospective view. *Governance and economic efficiency*, 87-108.
- Guthrie, J. (1998). Application of accrual accounting in the Australian public sector—rhetoric or reality?. *Financial Accountability & Management*, 14(1), 1-19.
- Guthrie, J., Olson, O., & Humphrey, C. (1999). Debating developments in new public financial management: the limits of global theorising and some new ways forward. *Financial Accountability & Management*, 15(3-4), 209-228.
- Guthrie, J., Petty, R., Ferrier, F., & Wells, R. (1999). *There is no accounting for intellectual capital in Australia: a review of annual reporting practices and the internal*

measurement of Intangibles. In: Proceedings of the OECD Symposium on Measuring and Reporting of Intellectual Capital, Amsterdam, 9-11.

Guthrie, J., Humphrey, C., Jones, L. R., & Olson, O. (2005). *International public financial management reform. Progress, contradictions and challenges*. Information age publishing: Greenwich, Co.

Hart, C. (1998). *Doing a literature review: Releasing the social science research imagination*. London, UK: Sage Publications.

Hart, J. and Wilson, C. (2004). *Management Accounting*, (3rd ed.). Pearson Education, Australia.

Harwell, M.R. (2011). Research design: Qualitative, quantitative, and mixed methods. In C. Conrad & R.C. Serlin (Eds.), *The Sage handbook for research in education: Pursuing ideas as the keystone of exemplary inquiry* (2nd ed). Thousand Oaks, CA: Sage.

Heracleous, L., & Barrett, M. (2001). Organizational change as discourse: Communicative actions and deep structures in the context of information technology implementation. *Academy of Management Journal*, 44(4), 755-770.

Herscovitch, L., & Meyer, J. P. (2002). Commitment to organizational change: extension of a three-component model. *Journal of applied psychology*, 87(3), 474.

Hiatt, J., Creasey, T. (2002). The Definition and History of Change Management. *Change Management Tutorial Series*. Available at: <http://www.change-management.com/tutorial-definition-history.htm>, accessed on April 27, 2010.

Hodges, R., & Mellett, H. (2003). Reporting public sector financial results. *Public Management Review*, 5(1), 99-113.

Hodgson, G. (1993). Institutional economics: surveying the old and the new. *Metroeconomica*, 44, 1-28.

Hodgson, G. (1998). The approach of institutional economics. *Journal of Economic Literature*, 26, 166-192.

Hodgson, G. (2006). Institutions and individuals: Interaction and Evolution. *Organization Studies*, 28(1), 95-116.

Hood, C. (1991). A public management for all seasons?. *Public administration*, 6(1), 3-19.

Hood, C. (1995). The new public management in the 1980s: variations on a theme. *Accounting, Organization and Society*, 20(2/3), 93-109.

Hopper, T., & Hoque, Z. (2006). Triangulation approaches to accounting research. *Methodological Issues in Accounting Research: Theories and Methods*, 477-486.

Uddin, S., & Hopper, T. (2001). A Bangladesh soap opera: privatisation, accounting, and regimes of control in a less developed country. *Accounting, Organizations and Society*, 26(7), 643-672.

Hopwood, A. G. (1987). The archeology of accounting systems. *Accounting, organizations and society*, 12(3), 207-234.

Hopwood, A. G. (1990). Accounting and Organization Change. *Accounting, Auditing and Accountability Journal*, 3(1), 7-17.

Hoque, Z., & Moll, J. (2001). Public sector reform—Implications for accounting, accountability and performance of state-owned entities—an Australian perspective. *International Journal of Public Sector Management*, 14(4), 304-326.

Hoque, Z., Arends, S., & Alexander, R. (2004). Policing the police service: A case study of the rise of “new public management” within an Australian police service. *Accounting, Auditing and Accountability Journal*, 17(1), 59-84.

Hoque, Z. (Eds.). (2006). *Methodological issues in accounting research: theories and methods*. Spiramus Press Ltd.

Howard-Grenville, J. A. (2005). The persistence of flexible organizational routines: The role of agency and organizational context. *Organization Science*, 16(6), 618-636.

Hughes, O. (1998). *Public Management and Administration: An introduction*, (2nd end.). Basingstoke: Macmillan.

Hussain, M. M., & Hoque, Z. (2002). Understanding non-financial performance measurement practices in Japanese banks: a new institutional sociology perspective. *Accounting, Auditing & Accountability Journal*, 15(2), 162-183.

Hyvönen, J., & Järvinen, J. (2006). Contract Based Budgeting in Health Care: a case study of the institutional processes of accounting change. *European Accounting Review*, 15(1), 3-16.

Innes, J., & Mitchell, F. (1990). The process of change in management accounting: some field study evidence. *Management Accounting Research*, 1(1), 3-19.

Innes, J., & Mitchell, F. (1990b). Activity-based costing research. *Management Accounting (CIMA)*, 68(5), 28-29.

Innes, J., & Mitchell, F. (1995). A survey of activity-based costing in the UK's largest companies. *Management Accounting Research*, 6(2), 137-153.

- Irvine, H. (2011). From go to woe: How a not-for-profit managed the change to accrual accounting. *Accounting, Auditing & Accountability Journal*, 24(7), 824-847.
- Jackson, A., & Lapsley, I. (2003). The diffusion of accounting practices in the new “managerial” public sector. *International Journal of Public Sector Management*, 16(5), 359-372.
- Johnson, B., & Turner, L. A. (2003). Data collection strategies in mixed methods research. *Handbook of mixed methods in social and behavioral research*, 297-319.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational researcher*, 33(7), 14-26.
- Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of mixed methods research*, 1(2), 112-133.
- Jones, R. (1992). The Development of Conceptual Frameworks of Accounting for the Public Sector. *Financial Accountability & Management*, 8(4), 249-264.
- Jones, C. T., & Dugdale, D. (2002). The ABC bandwagon and the juggernaut of modernity. *Accounting, Organizations and Society*, 27(1), 121-163.
- Jones, L.R., & Kettle, D.F. (2003). Assessing public management reform in an international context. *International Public Management Review*, 40(1). Available at: www.ipmr.net, accessed on April 27, 2010.
- Judson, A. S. (1991). *Changing behavior in organizations: Minimizing resistance to change*. Cambridge, MA: Blackwell.
- Kaiser, H. F. (1970). A second generation Little Jiffy. *Psychometrika*, 35, 401-415.
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39, 31-36.
- Kaminski, J. (2011). Theory applied to informatics—Lewin’s Change Theory. *CJNI: Canadian Journal of Nursing Informatics*, 6 (1), Editorial. Available at: <http://cjni.net/journal/?p=1210> (accessed on April 20, 2010).
- Kanter, R.M., Stein, B.A. & Jick, T.D. (1992). *The Challenge of Organisational Change*. The Free Press, New York, NY.
- Kaplan, R. S., Norton, D. P., (1996). *The Balanced Scorecard: Translating Strategy into Action*. Harvard Business School Press.
- Kasurinen, T. (2000). *Exploring management accounting change the case of balanced scorecard implementation*, Paper presented at the 23 rd annual congress of the European Accounting Association, Munich, 29-31 March.

Kasurinen, T. (2001). Influence of the implementation process on management accounting change in a hierarchical corporation. *Liiketaloudellinen Aikakauskirja*, 459-479.

Kasurinen, T. (2002). Exploring Management Accounting Changes: The Case of Balanced Scorecard Implementation. *Management Accounting Research*, 13(3), 323-343.

Katharaki, M. & Katharakis, G. (2010). A comparative assessment of Greek universities' efficiency using quantitative analysis. *International Journal of Educational Research*, 49(4/5), 115-128.

Keman, H. (Eds.). (1997). *The politics of problem-solving in postwar democracies*. St. Martin's Press.

Keramati, A., & Azadeh, M. A. (2007). *Exploring the effects of top management's commitment on knowledge management success in academia: A case study*. Proceedings of World Academy of Science, Engineering and Technology, 21, May.

Keridis, D., & Sfatos, C. (1998). Greek Higher Education: The Challenge of Reform. In D. Keridis & C. Sfatos (Eds.), *Greek Higher Education: Prospects for Reform*, 1, 173-179. New York, NY: Pella Publishing Company, INC.

Kiefer, T. (2005). Feeling bad: Antecedents and consequences of negative emotions in ongoing change. *Journal of Organizational Behavior*, 26(8), 875-897.

Klarner, P., Probst, G., Klarner, P., Soparnot, R., & Probst, G. (2007). From change management to the management of organizational change capacity: a conceptual approach. Citeseer.

Klein, S. M. (1996). A management communication strategy for change. *Journal of Organizational Change Management*, 9(2), 32-46.

Kostova, T., & Roth, K. (2002). Adoption of an organisational practice by subsidiaries of multinational corporations: Institutional and relational effects. *Academy of management journal*, 45(1), 215-233.

Kotter, J. (1995). Leading change: Why transformation efforts fail. *Harvard Business Review*, 73(2), 59-67.

Kotter, J. P. (1996). *Leading Change*. Harvard Business School Press. Boston: MA.

Kotter, J. P. (1998). Winning at change. *Leader to leader*, 10, 27-33.

Kotter, J. P., & Cohen, D. S. (2002). *The heart of change: Real-life stories of how people change their organizations*. Soundview Executive Book Summaries, USA.

- Kotter, J. P. (2002). Leading Change, 1996. *Heart of Change*.
- Kotter, J. R. (2007). Leading change-why transformation efforts fail. *Harvard business review*, 85(1), 96.
- Kotter, J. P. (2008). *A Sense of Urgency*. Harvard Business School Press. Boston: MA.
- Kotter, J. P. & Schlesinger, L. A. (2008). Choosing strategies for change. *Harvard business review*, 86(7/8), 130-139.
- Kraatz, M. S., & Zajac, E. J. (1996). Exploring the limits of the new institutionalism: The causes and consequences of illegitimate organizational change. *American sociological review*, 812-836.
- Kritsonis, A. (2004-2005). Comparison of change theories. *International journal of scholarly academic intellectual diversity*, 8(1), 1-7.
- Kuepper, H.U. (2003). *Accounting as part of an efficient management system for universities*. Paper presented in the 26th Annual Congress of the European Accounting Association, Seville.
- Kyriazis, A., & Asderaki, F. (2008). *Higher education in Greece*. Bucharest: Unesco-Cepes.
- Laitinen, E. K. (2001). Management accounting change in small technology companies: towards a mathematical model of the technology firm. *Management Accounting Research*, 12(4), 507-541.
- Lanning, H. (2001). *Planning and implementing change in organisations: a construct for managing chance projects*. Helsinki University of Technology.
- Lapsley, I. (1986). Capital asset accounting in UK nontrading organisations. *Financial Accountability & Management*, 2(4), 273-294.
- Lapsley, I. (1998). Reforming the public sector: demon accountants at work? *The Irish Accounting Review*, 5(1), 115-131.
- Lapsley, I. (1999). Accounting and the new public management: instruments of substantive efficiency of a rationalizing modernity? *Financial Accountability and Management*, 15(3/4), 201-207.
- Lapsley, I., Mussari, R., & Paulsson, G. (2009). On the adoption of accrual accounting in the public sector: a self-evident and problematic reform. *European Accounting Review*, 18(4), 719-723.
- Lapsley, I., & Oldfield, R. (2001). The accountant's craft in the new public sector. *The Irish Accounting Review*, 8(1), 1-32.

Lapsley, I., & Pettigrew, A. (1994). Meeting the challenge: Accounting for change. *Financial Accountability and Management*, 10(2), 79-92

Lapsley, I., & Wright, E. (2004). The diffusion of management accounting innovations in the public sector: a research agenda. *Management Accounting Research*, 15(3), 355-374.

Laughlin, R., Broadbent, J., & Willig-Atherton, H. (1994). Recent financial and administrative changes in GP practices in the UK: initial experiences and effects. *Accounting, Auditing & Accountability Journal*, 7(3), 96-124.

Lawler, E. E., Mohrman, S. A., & Benson, G. (2001). *Organizing for high performance: Employee involvement, TQM, reengineering, and knowledge management in the Fortune 1000*. San Francisco: Jossey-Bass.

Lawrence, S., & Sharma, U. (2002). Commodification of Education and Academic Labour- Using the Balanced Scorecard in a University Setting. *Critical Perspectives on Accounting*, 13(5/6), 661-677.

Ledez, R. E. (2008): Change Management: Getting a tuned up organization, in: *Business Intelligence Journal*, 7, 111- 119.

Lewin, K. (1945). The research center for group dynamics at Massachusetts Institute of Technology. *Sociometry*, 8(2), 126-136.

Lewin, K. (1946). Action research and minority problems. *Journal of social issues*, 2(4), 34-46.

Lewin, K. (1947). Frontiers in group dynamics: concept, method and reality in social science; social equilibria and social change. *Human relations*.

Lewin, K. (1947b). Group decisions and social change. In Newcomb, T. M. & Hartley, E. L. (Eds), *Readings in Social Psychology*, New York: Henry Holt.

Lewin, K. (1951). *Field Theory in Social Science, Selected Theoretical Papers*, edited by D. Cartwright. D., New York, NY, Harpers.

Lewin, K. (1958). Group decision and social change. In Maccoby, E.E., Newcomb, T. M. & Hartley, E. L. (Eds) *Readings in Social Psychology*, 197-211. Holt, Rinehart and Winston, New York.

Lewin, K., & Gold, M. E. (1999). *The complete social scientist: A Kurt Lewin reader*. American Psychological Association.

Libby, T. & Waterhouse J. H. (1996). Predicting Change in Management Accounting Systems. *Journal of Management Accounting Research*, 8, 137-150.

Likierman, A. (1992). Financial reporting in the public sector. *Public sector accounting and financial control*, 10-42.

Likierman, A. (2000). Changes to managerial decision-taking in the U.K. central government. *Management Accounting Research*, 11(2), 253-261.

Lines, R. (2005). The structure and function of attitudes toward organizational change. *Human Resource Development Review*, 4(1), 8-32.

Luecke, R. (2003). *Managing change and transition*. 3, Harvard Business Press.

Lüder, K., & Jones, R. (2003). The Diffusion of Accrual Accounting and Budgeting in European Countries-A Cross-country Analysis. In Lüder, K. & Jones, R. (Eds.), *Reforming Governmental Accounting and Budgeting in Europe* (Fachverlag Moderne Wirtschafts, Frankfurt am Main).

Lukka, K. (2006). Interventionist research. *Journal of Social Issues*, 36.

Lukka, K. (2007). Management accounting change and stability: loosely coupled rules and routines in action. *Management Accounting Research*, 18(1), 76-101.

Lye, J., Perera, H., & Rahman, A. (2005). The evolution of accruals-based Crown (government) financial statements in New Zealand. *Accounting, Auditing & Accountability Journal*, 18(6), 784-815.

Maassen, P., & Gornitzka, A. (1999). Integrating two theoretical perspectives on organisational adaptation. In *From the eye of the storm*. Springer Netherlands, 295-316.

McKee, M., Aiken, L., Rafferty, A. M., & Sochalski, J. (1998). Organisational change and quality of health care: an evolving international agenda. *Quality in health care: QHC*, 7(1), 37.

McShane, A., & Glinow, M. V. (2001). Workplace emotions, values, and ethics. *Organizational Behaviour*, 198-202.

MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong, S. (1999). Sample size in factor analysis. *Psychological methods*, 4(1), 84.

Makridakis, S., Caloghirou, Y., Papagiannakis, L., & Trivellas, P. (1997). The dualism of Greek firms and management: present state and future implications. *European Management Journal*, 15(4), 381-402.

Malmi, T. (1997). Towards explaining activity-based costing failure: accounting and control in a decentralized organization. *Management Accounting Research*, 8(4), 459-480.

Marsh, D., & Stoker, G. (2002). *Theories and methods in political science*. Palgrave.

Mattheou, D., & Saiti, A. (2005). The Organisation of academic work and university administration: A qualitative study from Greece. In Conference Proceedings entitled Trends in the Management of Human Resources in Higher Education, OECD: IMHE Paris France, Available at www.oecd.org/dataoecd/35/41/35327298.pdf (online pages 8), (accessed on April 10, 2010).

May, T. (2011). *Social Research: Issues, Methods and Research*, (4th ed.) Open university press.

McGuire, J. (2003). Leadership Strategies for Culture Change, *Journal of Developing Change Leadership as an Organizational Core Capability*, 1-2.

McKee, M., Aiken, L., Rafferty, A. M., & Sochalski, J. (1998). Organisational change and quality of health care: an evolving international agenda. *Quality in health care: QHC*, 7(1), 37.

McKinley, W., & Mone, M. A. (2003). Micro and macro perspectives in organization theory: A tale of incommensurability. *The oxford handbook of organization theory*, 345-372.

McRoy, I., & Gibbs, P. (2009). Leading change in higher education. *Educational Management Administration & Leadership*, 37(5), 687-704.

Mecca, T. V. (2004). *Basic concepts of organizational change for administrative leaders*. Lisle, IL: Pacific Crest.

Mellet, H. (1997). The role of resource accounting in the UK Government's quest for "better" accounting. *Accounting and Business Research*, 27(2), 157-169.

Meister-Scheytt, C., & Scheytt, T. (2005). The complexity of change in universities. *Higher Education Quarterly*, 59(1), 76-99.

Merriam, S. B. (2002). Qualitative research in practice: Examples for discussion and analysis.

Meyer, J. W. and Scott, W. R. (Eds.). (1994). *Institutional environments and organizations: Structural complexity and individualism*. Sage.

Miller, P. (1991). Accounting innovation beyond the enterprise: problematizing investment decisions and programming economic growth in the UK in the 1960s. *Accounting, Organizations and Society*, 16(8), 733-762.

Miller, P., & Napier, C. (1993). Genealogies of calculation. *Accounting, Organizations and Society*, 18(7), 631-647.

- Miller, P. (1998). The margins of accounting. *European Accounting Review*, 7(4), 605-621.
- Minogue, M. (2000). *Should Flawed Models of Public Management be Exported? Issues and Practices*. Manchester: Institute for Development Policy and Management, University of Manchester.
- Mintzberg, H. (1983). *Power in and around organizations*. Englewood Cliffs, NJ: Prentice Hall.
- Mintzberg, H. (1998). Covert leadership: notes on managing professionals. *Harvard business review*, 76, 140-148.
- Mitchell E. (1986). Multiple triangulation: a methodology for nursing science. *Advances in Nursing Science*, 3(8), 18-26.
- Modell, S. (2005). Triangulation between case study and survey methods in management accounting research: an assessment of validity implications. *Management Accounting Research*, 16(2), 231-254.
- Molina Azorín, J. M. & Cameron, R. (2010). The Application of Mixed Methods in Organisational Research: A Literature Review. *The Electronic Journal of Business Research Method*, 8(2), 95-105.
- Moll, J. (2003). *Organisational Change and Accounting Control Systems at an Australian University*. Thesis, Griffith University.
- Moll, J., Burns, J., & Major, M. (2006). Institutional theory. *Methodological Issues in Accounting Research: Theories, Methods and Issues*, 183-205.
- Monsen, N. (2002). The Case for Cameral Accounting. *Financial Accountability & Management*, 18(1), 39-72.
- Moore, K., & Yuen, S. (2001). Management accounting systems and organizational configuration: a life-cycle perspective. *Accounting, Organizations and Society*, 26(4), 351-389.
- Morphew, C. C. (1996). Statewide Governing Boards: a longitudinal study of seven public systems of higher education. Thesis, *Stanford University*.
- Morse, J. M. (2003). Principles of mixed methods and multimethod research design. *Handbook of mixed methods in social and behavioral research*, 189-208.
- Mulgan, R. (2002). Public accountability of provider agencies: the case of the Australian 'Centrelink'. *International Review of Administrative Sciences*, 68(1), 45-60.

- Munir, R., Perera, S., & Baird, K. (2011). An Analytical Framework to Examine Changes in Performance Measurement Systems within the Banking Sector. *Australasian Accounting Business and Finance Journal*, 5(1), 93-115.
- Nachmias, C. F. & Nachmias, D. (2008). *Research methods in the social sciences*, (7th ed.) New York: Worth.
- Napier, C. J. (2006). Accounts of change: 30 years of historical accounting research. *Accounting, Organizations and Society*, 31(4), 445-507.
- National Budget Report 1997, 1998, 1999, 2000, 2001 and 2002, Ministry of Finance, Athens (in Greek).
- Nelson, R. R., & Winter, S. G. (1982). *An evolutionary theory of economic change*. Belknap press.
- Nelson, R. (2003). On the Uneven Evolution of Human Know-how. *Research Policy*, 909-922.
- Newton, J. (2002). Barriers to Effective Quality Management and Leadership: case study of two academic departments. *Higher Education*, 44(2), 185-212.
- Nickols, F. (2000). Change management 101: A primer. *Unpublished Manuscript*. Available at: <http://home.att.net/~nickols/change.pdf>, (accessed on April 10, 2010).
- Nickols, F. (2012). The action-motivation matrix: Positions people take regarding problems. *Performance Improvement*, 51(9), 10-13.
- North, D., (1990). *Institutions, institutional change and economic performance*. Cambridge University Press.
- North, D., (1991). *Institutions, institutional change and economic performance*. Cambridge University Press.
- North, D. C. (1999). *Understanding the process of economic change*. London: Institute of economic affairs.
- Oakland, J. S., & Tanner, S. J. (2007). A new framework for managing change. *The TQM Magazine*, 19(6), 572-589.
- OECD (2000). *Accrual Accounting and Budgeting Practice in Member Countries-Overview*. Paper presented at the International Accrual Accounting and Budgeting Symposium in Paris (OECD Public Sector Committee, Paris).
- OECD (2002). Models of Public Budgeting and Accounting Reform. *OECD Journal on Budgeting*, 2(1), 1-356.

- Oliver, C. (1991). Strategic responses to institutional processes. *Academy of management review*, 145-179.
- Oliver, C. (1997). Sustainable competitive advantage: Combining institutional and resource-based views. *Strategic management journal*, 18(9), 697-713.
- Pallot, J. (2001). Transparency in Local Government: Antipodean Initiatives. *The European Accounting Review*, 10(3), 645-660.
- Padovani, E., Orelli, R. L., & Katsikas, E. (2012). *A comparative study of management accounting innovations in the public sector: A path to (no)where?*. Working paper.
- Pallant, J. (2005). *SPSS Survival Manual*. 2nd ed., Open University Press.
- Pallot, J. (1992). Elements of a theoretical framework for public sector accounting. *Accounting, Auditing & Accountability Journal*, 5(1).
- Palmer, D. & Biggart, N. W. (2002). Organizational institutions, in J. A. C. Baum (eds). *Companion to Organization*, 259-280. Oxford Blackwell.
- Papadeas, P., (2008). *Human capital, economic growth and accountability of the tertiary education institutions*. *Spoudai*, 58(3/4), 96-125.
- Papadimitriou, A. (2011). *The enigma of quality in Greek higher education: a mixed methods study of introducing quality management into Greek higher education*, Thesis, CHEPS, University of Twente.
- Papadimitriou, A. (2011). Academic freedom and student grading in Greek higher education. *Quality in Higher Education*, 17(1), 105-109.
- Parish, J. T., Cadwallader, S., & Busch, P. (2008). Want to, need to, ought to: employee commitment to organizational change. *Journal of Organizational Change Management*, 21(1), 32-52.
- Parker, L. D., & Guthrie, J. (1993). The Australian public sector in the 1990s: new accountability regimes in motion. *Journal of International Accounting, Auditing and Taxation*, 2(1), 59-81.
- Papandreou, A. (1998). *Externality and institutions*. Oxford University Press.
- Paulsson, G. (2006). Accrual accounting in the public sector: experiences from the central government in Sweden. *Financial Accountability & Management*, 22(1), 47-62.
- Perera, S., McKinnon, J. L., & Harrison, G. L. (2003). Diffusion of transfer pricing innovation in the context of commercialization—a longitudinal case study of a government trading enterprise. *Management Accounting Research*, 14(2), 140-164.

Pettersen, I. J. (2001). Implementing Management Accounting Reforms in the Public Sector: The Difficult Journey from Intentions to Effects. *The European Accounting Review*, 10(3), 561-581.

Pettersen, I.J., & Solstad, E. (2007). The role of accounting information in a reforming area: a study of higher education institutions. *Financial Accountability and Management*, 23(2), 133–154.

Pettigrew, A. M., Ferlie, E. F. and McKee, L. (1992). *Shaping Strategic Change*. London: Sage.

Pfeffer J. (1992). *Managing with power: politics and influence in organizations*. Harvard Business School Press, Boston, MA, USA.

Phellas, C. N., Bloch, A., & Seale, C. (2012). Structured methods: Interviews, questionnaires and observation. In Seale, C (Eds), *Researching society and culture* (3rd ed.). 182-205. Sage Publications: UK.

Piderit, S. K. (2000). Rethinking resistance and recognizing ambivalence: A multidimensional view of attitudes toward an organizational change. *Academy of management review*, 25(4), 783-794.

Pina, V., & Torres, L. (2003). Reshaping Public Sector Accounting: An International Comparative View. *Canadian Journal of Administrative Sciences*, 20(4), 334-350.

Pina, V., Torres, L., & Yetano, A. (2009). Accrual Accounting in EU Local Governments: One Method, Several Approaches. *European Accounting Review*, 18(4), 765-807.

Pollitt, C. (1990). *Managerialism and the public services: the Anglo-American experience*. Oxford: Blackwell.

Pollitt, C., & Boucaert, G. (2000). *Public Management Reform: An international comparison*. Oxford University Press, Oxford.

Potter, B. (2002). Financial accounting reforms in the Australian public sector. An episode in institutional thinking. *Accounting, Auditing and Accountability Journal*, 15(1), 69-93.

Power, M. (1997). Expertise and the construction of relevance: accountants and environmental audit. *Accounting, Organizations and Society*, 22(2), 123-146.

Presidential Decree, P. 315/99 (1999). *Sectoral Accounting Plan for the Municipalities*. (in Greek)

Punch, K. F. (2000). *Developing effective research proposals*. SAGE Publications Limited.

Quattrone, P., & Hopper, T. (2001). What does organizational change mean? Speculations on a taken for granted category. *Management Accounting Research*, 12(4), 403-435.

Quinn, R. E. (2010). *Deep change: Discovering the leader within* (Vol. 378). Jossey-Bass.

Ribeiro, J. A., & Scapens, R. W. (2004). Power, institutionalism, ERP systems and resistance to management accounting: a case study. In *Presentation at the Annual Congress of the European Accounting Association*.

Ribeiro, J. A., & Scapens, R. W. (2006). Institutional theories in management accounting change: contributions, issues and paths for development. *Qualitative Research in Accounting & Management*, 3(2), 94-111.

Richardson, S., & Cullen, J. (2000). Autopsy of change: Contextualising Entrepreneurial and Accounting potential in the NHS. *Financial Accountability and Management*, 16(4), 353-372.

Ridenour, C. S., & Newman, I. (2008). *Mixed methods research: Exploring the interactive continuum*. Carbondale, IL: Southern Illinois University Press.

Ritchie, B. (2006). Lewin's Change Management Model: Understanding the Three Stages of Change. Available at: www.consultpivotal.com/lewin's.htm (accessed on March 15, 2011).

Robertson, P. J., & Seneviratne, S. J. (1995). Outcomes of planned organizational change in the public sector: A meta-analytic comparison to the private sector. *Public Administration Review*, 547-558.

Robbins, S. P. (2003). *Organisational behaviour: global and Southern African perspectives*. Pearson South Africa.

Robson, C. (2002). *Real world research: A resource for social scientists and practitioner-researchers* (2nd ed.). Oxford: Blackwell.

Rowley, J. (2002). Using case studies in research. *Management Research News*, 25(1), 16-27.

Thompson, A., Robbins, P., Sohngen, B., Arvai, J., & Koontz, T. (2006). Economy, politics and institutions: from adaptation to adaptive management in climate change. *Climatic change*, 78(1), 1-5.

Rowles, T. (2002), *Defending accrual accounting in the public sector: its usefulness in economic decision making*, in the *International Conference on Accounting, Auditing, and Management in Public Sector Reforms*, Dublin, 2002, European Institute of Advanced Studies in Management.

Rowles, T. (2004), *Accrual Accounting in the Public Sector: Its Usefulness in Economic Decision Making. Journal of Finance and Management in Public Services*, 3(2), 62-77.

Ruddock, A. (2001). *Understanding audiences: Theory and method*. SAGE Publications Limited.

Ruef, M., & Scott, W. R. (1998). A multidimensional model of organizational legitimacy: Hospital survival in changing institutional environments. *Administrative Science Quarterly*, 43(4), 877-904.

Ryan, B., Scapens, R., W. & Theobald, M. (2002). *Research Method and Methodology in Finance and Accounting*. London, Thomson Learning.

Saiti, A. (2010). Management Science in Higher Education Institutions: Case Studies From Greece. *Interchange*, 41(1), 45-60.

Saitis, C. A. (1988). The Relationship between the State and the University in Greece. *European Journal of Education*, 23(3), 249-260.

Saitis, C. (1993). Main features of higher education in Greece. In Gellert, C. (Eds) *Higher Education in Europe*, 109-121. London and Philadelphia: Jessica Kingsley Publishers.

Sarantakos, S. (2005). *Social research*. Palgrave Macmillan, Basingstoke.

Saunders, M. N., Saunders, M., Lewis, P., & Thornhill, A. (2007). *Research Methods For Business Students*, (4th ed.). Pearson Education India.

Saunders, M. N., Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods For Business Students*, (5th ed.). Pearson Education India.

Saunders, M. N., Saunders, M., Lewis, P., & Thornhill, A. (2012). *Research Methods For Business Students*, (6th ed.). Pearson Education India.

Savas, E. S. (2000). *Privatization and public-private partnerships*. Ithaca, NY: Cornell University Press.

Scapens, R. W. (1994). Never mind the gap: towards an institutional perspective on management accounting practice. *Management Accounting Research*, 5(3), 301-321.

Scapens, R.W., Ormston, A. L., & Arnold, J. (1994). The development of overhead recovery models at the University of Manchester. In Berry, R.H. (Eds.), *Management Accounting in Universities*, CIMA, London

Scapens, R. W. (2006). Understanding management accounting practices: a personal journey. *The British Accounting Review*, 38(1), 1-30.

- Scapens, R. W., & Roberts, J. (1993). Accounting and control: a case study of resistance to accounting change. *Management Accounting Research*, 4(1), 1-32.
- Schalk, R., Cambell, J. W. & Freese, C. (1998). Change and employee behaviour. *Leadership and Organization Development Journal*, 19, 157-163.
- Schein, E. H. (1996). Kurt Lewin's change theory in the field and in the classroom: Notes toward a model of managed learning. *Systems Practice*, 9(1), 27-47.
- Schein, E. H. (1996). Leadership and organizational culture. *The leader of the future*, 59-70.
- Schuetze, H. G. (Eds.). (2001). And the walls came tumbling down - Higher Education and non-traditional students. Papers from the International Symposium on Non-Traditional Learners in Higher Education. Vancouver: University of British Columbia (Centre for Policy Studies in Education)
- Schuetze, H. G., & Slowey, M. (2002). Participation and exclusion: A comparative analysis of non-traditional students and lifelong learners in higher education. *Higher Education*, 44(3-4), 309-327.
- Scott, W. R. & Ruef, M. (1998). A multidimensional model of organizational legitimacy: Hospital survival in changing institutional environments. *Administrative Science Quarterly*, 877-904.
- Scott W. R. (2001a). *Institutions and Organizations*. (2nd ed.). Thousand Oaks, CA: Sage.
- Scott, W. R. (2001). *Institutions and organizations* (2nd ed.). Thousand Oaks, CA: Sage.
- Scott W. R. (2001b). *Organizations, overview*. In International Encyclopedia of the Social and Behavioral Sciences, Amsterdam: Pergamon/Elsevier Science.
- Senge, P. M. (2003). Taking Personal Change Seriously: The Impact of "Organizational Learning" on Management Practice. *The Academy of Management Executive* (1993-2005), 17(2), 47-50.
- Senior, B. (2002). *Organisational Change*, (2nd ed.). Prentice Hall, London.
- Shank, J. K. (1996). Analysing technology investments-from NPV to strategic cost management. *Management Accounting Research*, 7(2), 185-197.
- Sharma, R. R. (2007). *Change management: Concepts and applications*. Tata McGraw-Hill.

- Sheard, S. (2001). What is senior management commitment. In *Proc. of the 11th Annual Symposium of the International Council on Systems Engineering*.
- Shields, M. D. (1995). An empirical analysis of firms' implementation experiences with activity-based costing. *Journal of Management Accounting Research*, 7(1), 148-165.
- Siti-Nabiha, A. K., & Scapens, R. W. (2005). Stability and change: an institutionalist study of management accounting change. *Accounting, Auditing & Accountability Journal*, 18 (1), 44-73.
- Smith, A.B. (2007). Change dynamics within project management: An assessment tool. Thesis for Philosophy Degree.
- Soin, K., Seal, W. & Cullen, J. (2002). ABC And Organizational Change: An Institutional Perspective. *Management Accounting Research*, 13, 249-271.
- Spathis, C., & Ananiadis, J. (2004). The accounting system and resource allocation reform in a public university. *International Journal of Educational Management*, 18(3), 196-204.
- Spraakman, G. (2006). The impact of institutions on management accounting changes at the Hudson's Bay Company, 1670 to 2005. *Journal of Accounting & Organizational Change*, 2(2), 101-122.
- Stamatiadis, F. (2009). Investigating the Governmental Accounting Reform of Greek National Health System (ESY): Some preliminary Evidence. *International Journal on Governmental Financial Management*, 9(2), 73-97.
- Steccolini, I. (2002). Local Government Annual Report: an Accountability Medium. In *EIASM Conference on Accounting and Auditing in Public Sector Reforms, Dublin*.
- Stensaker, B. (2004). The transformation of organisational identities: interpretations of policies the concerning the quality of teaching and learning in Norwegian higher education. University of Twente.
- Stein, B. A., & Kanter, R. M. (1993). Leadership for change: the rest of the story. *Frontiers of health services management*, 10(2), 28.
- Stevens, W. G. (2013). Toward a Process-Based Approach of Conceptualizing Change Readiness. *The Journal of Applied Behavioral Science*, 49(3), 333-360.
- Sulaiman, S., & Mitchell, F. (2005). Utilising a typology of management accounting change: An empirical analysis. *Management Accounting Research*, 16(4), 422-437.
- Tabachnick, B. G., & Fidell, L. S. (2001). Principal components and factor analysis. *Using multivariate statistics*, 582-652.

- Tashakkori, A., & Creswell, J. W. (2007). Editorial: The new era of mixed methods. *Journal of mixed methods research*, 1(1), 3-7.
- Tashakkori, A., & Teddlie, C. (2008). Quality of inferences in mixed methods research: Calling for an integrative framework. *Advances in mixed methods research*, 101-119.
- Teare, R., & Monk, S. (2002). Learning from change. *International Journal of Contemporary Hospitality Management*, 14(7), 334-340.
- Teddlie, C., & Tashakkori, A. (Eds.). (2003). *Handbook of mixed methods in social & behavioral research*. Sage.
- Tashakkori, A., & Teddlie, C. (2008). Quality of inferences in mixed methods research: Calling for an integrative framework. *Advances in mixed methods research*, 101-119.
- Teddlie, C., & Tashakkori, A. (2009). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences*. Thousand Oaks, CA: Sage.
- Thorndike, R. M. (1997). Measurement and numbers. *Measurement and evaluation in psychology and education*. 23-50, Columbus, OH: Merrill.
- Thurmond, V. A. (2001). The point of triangulation. *Journal of Nursing Scholarship*, 33(3), 253-258.
- Tiron-Tudor, A. (2006). Implementing the accrual accounting in public sector. East European countries experience. *Studia Oeconomica*, (51).
- Tiron Tudor, A., & Blidisel, R. (2007). Accrual Accounting Experience in the Romanian Public Higher Education Sector. *International Journal of Business Research*, 7(6), Academy of International Business and Economics, Los Angeles, SUA, 121-131.
- Todnem By, R. (2005). Organisational change management: A critical review. *Journal of Change Management*, 5(4), 369-380.
- Tolbert, P. S., & Zucker, L. G. (1983). Institutional sources of change in the formal structure of organizations: The diffusion of civil service reform, 1880-1935. *Administrative science quarterly*, 22-39.
- Tolofari, S. V. (2008). *The commodification of higher education in the welfare state of Sweden: exploring the possibilities*, Thesis, University of Glasgow.
- Tomkins, C. (2001). Interdependencies, trust and information in relationships, alliances and networks. *Accounting, Organizations and Society*, 26(2), 161-191.

Tuan Mat, T. (2010). Management accounting and organizational change: impact of alignment of management accounting system, structure and strategy on performance. *Theses: Doctorates and Masters*, paper 149.

UNDP (2006). Institutional Reform and Change Management: Managing Change in Public Sector Organisations. *UNDP Conference Paper #5*. UNDP Capacity Development Group.

Vaivio, J. (1999). Exploring a non-financial management accounting change. *Management Accounting Research*, 10(4), 409-437.

Van de Ven, A. H., & Poole, M. S. (1995). Explaining development and change in organizations. *Academy of management review*, 510-540.

Van der Stede, W. A., Young, S. M. & Chen, C. X., (2007). Doing management accounting survey research. In Chapman, C. S., Hopwood, A. G & Shields, M. D. (Eds.) *Handbook of Management Accounting Research*, (1st ed.). Elsevier, Amsterdam et al., 445-478.

Venieris, G., & Cohen, S. (2004). Accounting Reform in Greek Universities: A slow moving process. *Financial Accountability & Management*, 20(2), 183-204.

Waldron, M. (2005). Overcoming barriers to change in management accounting systems. *The Journal of American Academy of Business*, 6(2), 244-249.

Wallander, J. (1999). Budgeting-an unnecessary evil. *Scandinavian Journal of Management*, 15(4), 405-421.

Wanderley, D. A. C., Cullen, J., & Tsamenyi, M. (2011). Privatisation and electricity sector reforms in Brazil: accounting perspective. *Journal of Accounting in Emerging Economies*, 1(1), 53-75.

Weber, P. S., & Weber, J. E. (2001). Changes in employee perceptions during organizational change. *Leadership & Organization Development Journal*, 22(6), 291-300.

Weller, S. A. (2009). *A study of organisational justice and participative workplace change in Australian higher education*. Thesis, Victoria University.

Werner, S. (2002). Recent developments in international management research: A review of 20 top management journals. *Journal of Management*, 28(3), 277-305.

West, A. M., Hirst, G., Richter, A., & Shipton, H. (2004). Twelve steps to heaven: Successfully managing change through developing innovative teams. *European Journal of Work and Organizational Psychology*, 13(2), 269-299.

West, B., & Carnegie, G. D. (2010). Accounting's chaotic margins: Financial reporting of the library collections of Australia's public universities, 2002-2006. *Accounting, Auditing & Accountability Journal*, 23(2), 201-228.

Wickramasinghe, D., & Alawattege, C. (2007). *Management Accounting Change: Approaches and Perspectives*, London/New York: Routledge.

Wicks, D. (2001). Institutionalized mindsets of invulnerability: Differentiated institutional fields and the antecedents of organizational crisis. *Organization Studies*, 22, 659-692

Williams, J. J., & Seaman, A. E. (2001). Predicting change in management accounting systems: national culture and industry effects. *Accounting, Organizations and Society*, 26(4), 443-460.

Wilson, C., & Keers, B. (2003). *Financial Management: Principles and Applications*. Prentice Hall/Pearson Education Australia.

Wit, B. D., & Meyer, R. (2005). Strategy synthesis. *International Thomson Business*.

Witherspoon, P. D., & Wohler, K. L. (1996). An approach to developing communication strategies for enhancing organizational diversity. *Journal of Business Communication*, 33(4), 375-399.

Wynne, A. (2003). Do private sector financial statements provide a suitable model for public sector accounts. *European Group of Public Administration*, 1-22.

Yazdifar, H. (2003). Management accounting in the twenty-first-century firm: a strategic view. *Strategic Change*, 12(2), 109-113.

Yin, R. K. (1994). *Case study research: Design and Methods*, (2nd ed.). Thousand Oaks, CA: Sage.

Yin, R. K. (2003). *Case studies research: design and methods*. Thousand Oaks, Sage.

Yin, R. K. (2009). *Case study research: Design and methods*, (5th ed.). Thousand Oaks, Sage.

Young, M., & Post, J. E. (1993). Managing to communicate, communicating to manage: how leading companies communicate with employees. *Organizational Dynamics*, 22(1), 31-43.

Yu, J. E. (2004). Reconsidering participatory action research for organizational transformation and social change. *Journal of Organisation Transformation & Social Change*, 1(2), 111-141.

Zainal, Z. (2007). Case study as a research method. *Jurnal Kemanusiaan*, 9, 1-6.

Zikmund, W. G. (2003). Sample designs and sampling procedures. *Business Research Methods*, 7, 368-400.

Zucker, L. G. (1987). Institutional theories of organization. *Annual review of sociology*, 13, 443-464.h